



## Transmission line Stringing Tools & Equipment Division

HIND GOLD AUTOMOTIVE COMPONENTS



# CLIENT LIST



**VISION** - Our Mission is **SAFETY FIRST**. Safety of Workmen , Conductors, OPGW, Working Items and Equipments and to enhance excellence in Product design as per Application and attain Cost Competitiveness through continual improvements in Production methods, Design and Quality Systems.

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Continuous improvement and Compliance of revised safety and other Guidelines by conductor manufactures and other quality guidelines like IEEE etc. may result in change in product specifications for Longevity and Performance.

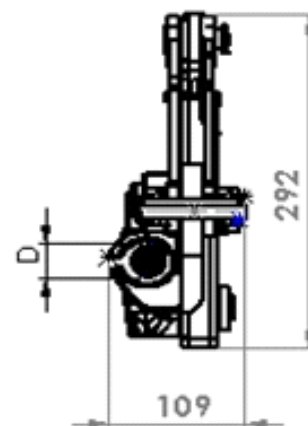
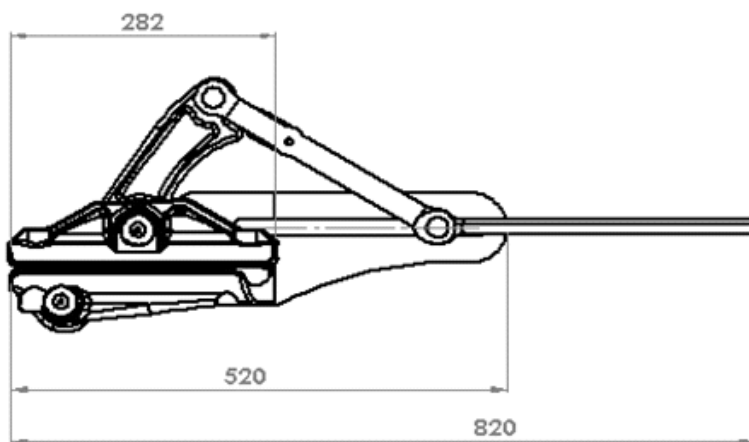
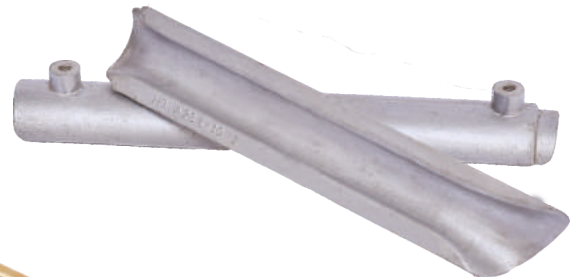
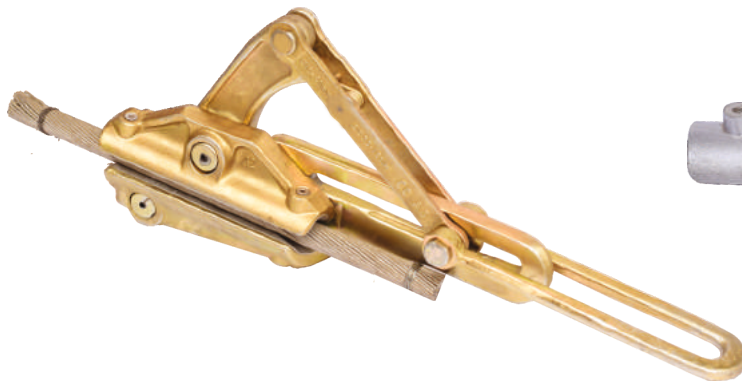
## SELF GRIPPING CLAMP

### HG.AC.1041

The self gripping clamps are made up of high tensile special alloy steel and are hot forged, heat treated, precision machined and zinc plated. They have a balanced ratio between weight and working load.

A complete range of interchangeable liners suitable for ACSR, AAAC, HTLS, anti-twisting rope, earthwire, copper conductors are available for all types of gripping applications. The liners are available in aluminium for aluminium/steel conductors and in bronze for copper conductors, pilot wire rope and steel earthwire from  $\varnothing$  10 mm-41 mm (special model up to  $\varnothing$  46 mm on request).

Our range of self-gripping clamps promise of high quality and comply with all international standards.



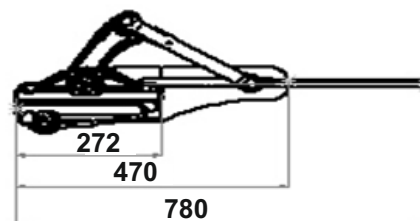
Maximum safety load	106 kN
Minimum breaking load	320 kN
Weight	17 kg



## SELF GRIPPING CLAMP

### HGAC 0832

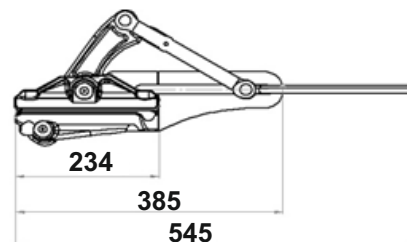
Maximum safety load	90 kN
Minimum breaking load	290 kN
Weight	13.5 kg



### HGAC 0623

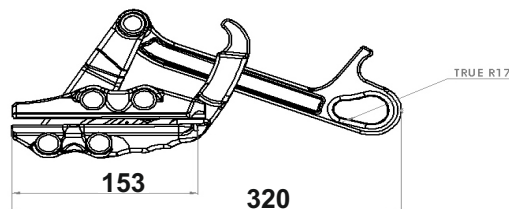
Clamp has Long jaw suitable for OPGW & conductors.

Maximum safety load	50 kN
Minimum breaking load	180 kN
Weight	7 kg



### HGAC 0718

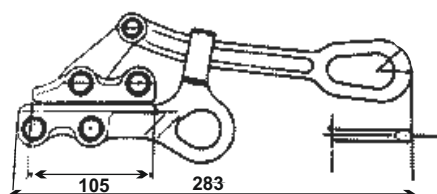
Maximum safety load	22 kN
Minimum breaking load	66 kN
Weight	2.5 kg



### \*HGAC 2.5-16

Clamps suitable for steel rope & copper conductors.

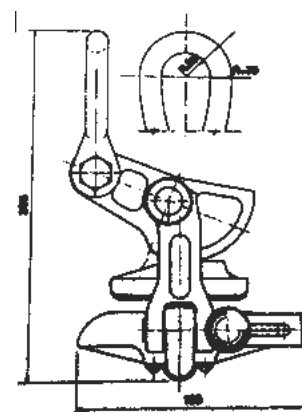
Maximum safety load	20 kN
Minimum breaking load	60 kN
Weight	1.5 kg



### HGAC 0738

Clamps suitable for lifting conductors in suspension.

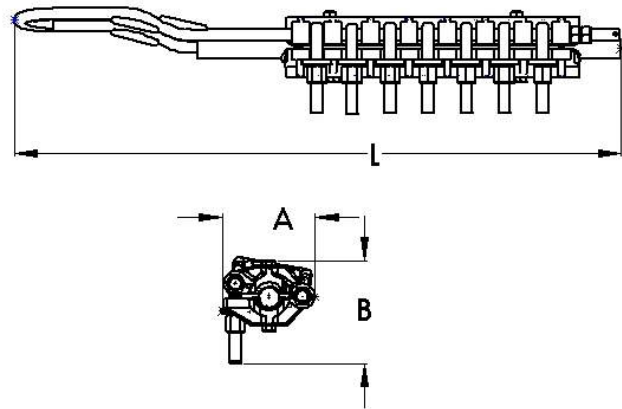
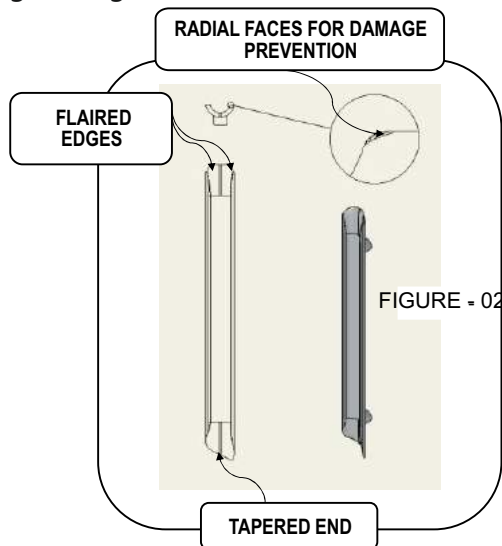
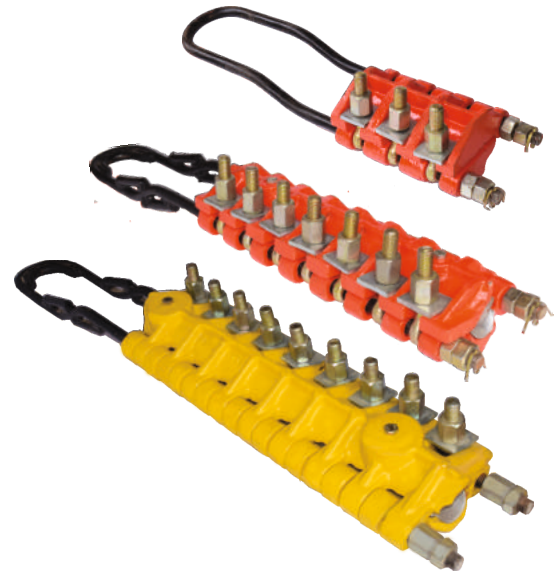
Maximum safety load	40 kN
Minimum breaking load	120 kN
Weight	5.5 kg



## BOLTED COME-ALONG CLAMPS

The bolted come-along clamps are fit for pulling and anchoring overhead conductors, earthwire and steel wire ropes. The clamps are assembled by various cast and forged alloy steel parts.

The grooves are fitted with gravity die casted aluminium alloy liners which are interchangeable according to the actual diameter of the conductor. A 2-3 mm side radius on liners is given to allow conductor expansion while tightening to avoid scratches on conductors.



Model No.	Eye Bolts	Dimensions A X B X L (mm)	For Steel Wire Rope Up To Diameter* (mm)	For Conductor Up To Diameter* (mm)	Working Load (kN)	Breaking Load (kN)	Weight (Kg)
HG.BC.03	03	130X120X508	10-16	-	15	45	8
HG.BC.04	04	130X120X558	12-20	-	17	50	9
HG.BC.07	07	130X146X861	-	20-33	27	80	17
HG.BC.08	08	140X149X910	-	31-36	33	100	20
HG.BC.09	09	150X150X920	-	35-41	40	120	23

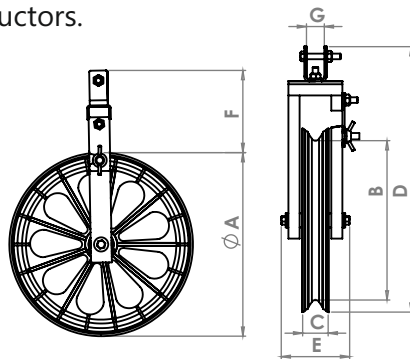
\*Note:

1. Please specify the diameter and the type of conductor/earthwire/steel rope, while placing an order.
2. Other liners apart from those compatible with the diameters of standard conductors and earthwires are also available upon request.

## AERIAL ROLLERS

### SINGLE SHEAVE AERIAL ROLLERS

The single sheave aerial roller is a gravity die casted aluminium alloy sheave, which is mounted on sealed ball bearings and groove lined with neoprene / natural rubber compound flap (Shore hardness 60-70 shore A with minimum thickness at bottom of the groove of 6.5 mm & tensile strength of 130-200 kg/cm<sup>2</sup>) for conductor protection. It is mounted on a fixed steel frame with standard plate attachment. It is fit for stringing overhead conductors.



MODEL NO.	DIMENSIONS(mm)							WORKING LOAD (kN)	BREAKING LOAD (kN)	WEIGHT (Kg)
	A	B	C	D	E	F	G			
HG.S1.300	300	226	46	565	125	230	54	60	180	7
HG.S1.300B	300	234	62	560	145	230	64	60	180	9
HG.S.1.400	400	300	65	710	149	310	64	60	180	11
HG.S.1.450	450	350	70	760	150	310	64	70	210	15
HG.S.1.612	612	512	68	927	240	355	64	90	270	21.5
HG.S.1.660	660	573	77	1015	246	355	64	90	270	34
HG.S.1.612	660	512	71	927	240	355	64	90	270	21.5
HG.S.1.710	710	610	68	1065	240	355	64	90	270	31
HG.S.1.760	760	650	95	1115	246	355	64	90	270	39
HG.S.1.775	775	650	82.5	1125	246	355	64	90	270	42
HG.S.1.800	800	657	98	1150	250	355	64	90	270	44
HG.S.1.820	820	710	90	1150	250	355	64	90	270	48
HG.S.1.915	915	800	95	1265	260	350	64	90	270	47
HG.S.1.1110	1110	1000	100	1460	300	350	64	90	270	51
HG.S.1.1350	1350	1200	130	1700	330	350	64	90	270	110

NOTE : Any special rollers of any diameters can be made on specific request.

#### Attachment Type :

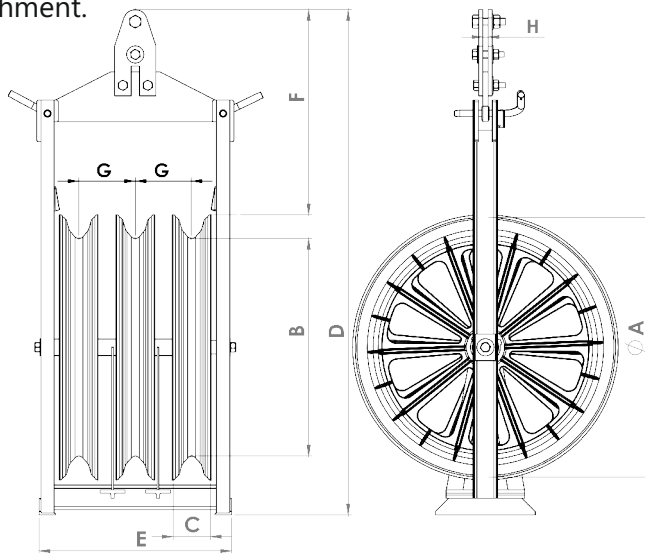
- ◆ Fix clevis
- ◆ Turn-able clevis
- ◆ Turn-able hook

#### On Request :

- ◆ Swivelling hook attachment .
- ◆ Interchangeable Aluminium / Nylon lining sectors for bottom groove .
- ◆ Protective case for transport and stocking.
- ◆ Special frame like stand mounted sheave.

### THREE SHEAVES AERIAL ROLLERS

The three sheave aerial rollers are gravity die casted aluminium alloy sheaves, which are mounted on sealed ball bearings and groove lined with neoprene/natural rubber flaps (Shore hardness 60-70 shore A with minimum thickness at bottom of the groove of 6.5 mm & tensile strength of 130-200 kg/cm<sup>2</sup>) for conductor protection. They are mounted on fixed steel frames with standard plate attachment.



MODEL NO.	DIMENSIONS(mm)								WORKING LOAD (kN)	BREAKING LOAD (kN)	WEIGHT (Kg)
	A	B	C	D	E	F	G	H			
HG.S.3.612	612	512	68	1330	500	625	175	30	50	155	112
HG.S.3.660	660	573	77	1400	580	625	175	30	50	155	112
HG.S.3.710	710	610	68	1430	580	625	175	30	55	165	122
HG.S.3.760	760	650	95	1430	580	625	175	30	55	165	122
HG.S.3.775	775	650	82.5	1430	580	625	175	30	55	165	122
HG.S.3.800	800	657	98	1450	580	625	175	30	60	180	135
HG.S.3.820	820	710	90	1430	580	625	175	30	60	180	155
HG.S.3.915	915	800	95	1540	580	625	175	30	60	180	165
HG.S.3.1110	1110	1000	100	1740	580	625	175	30	70	210	198
HG.S.3.1350	1350	1200	130	1830	620	625	175	30	70	210	220

NOTE : Any special rollers of any diameters can be made on specific request.

#### Attachment Type :

- ◆ Fix clevis
- ◆ Turn able clevis

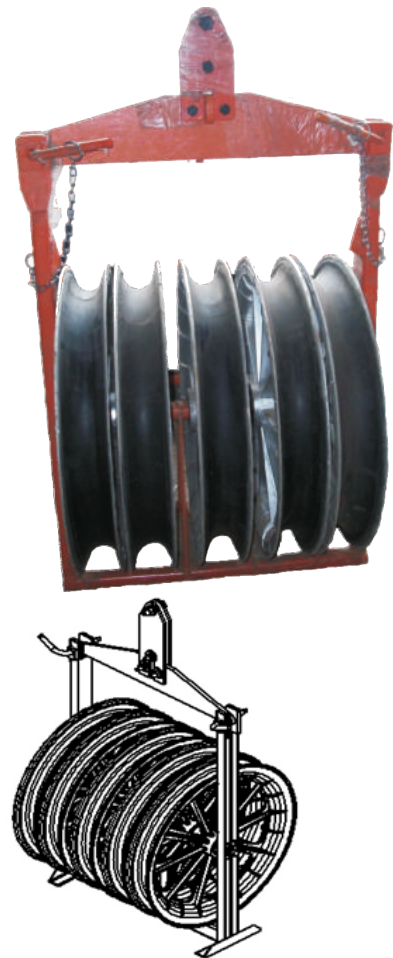
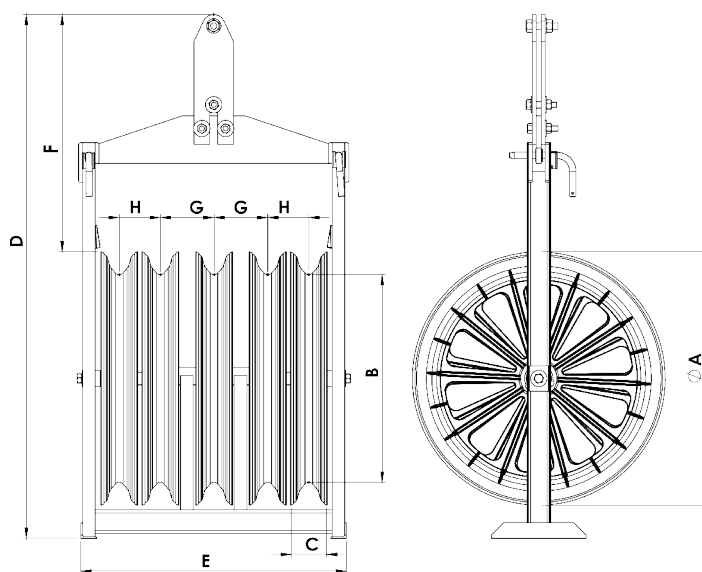
#### On Request :

- ◆ Swivelling hook attachment .
- ◆ Interchangeable Aluminium / Nylon lining sectors for bottom grooves .
- ◆ Protective case for transport and stocking.



## FIVE SHEAVES AERIAL ROLLERS

The five sheave aerial rollers are gravity die casted aluminium alloy sheaves, which are mounted on sealed ball bearings and groove lined with neoprene/natural rubber flaps (Shore hardness 60-70 shore A with minimum thickness at bottom of the groove of 6.5 mm & tensile strength of 130-200 kg/cm<sup>2</sup>) for conductor protection. They are mounted on fixed steel frames with standard plate attachment.



MODEL NO.	DIMENSIONS(mm)								WORKING LOAD (kN)	BREAKING LOAD (kN)	WEIGHT (Kg)
	A	B	C	D	E	F	G	H			
HG.S.5.612	612	512	68	1330	720	645	140	100	50	155	155
HG.S.5.660	660	573	77	1400	720	645	140	100	50	155	160
HG.S.5.710	710	610	68	1430	800	645	145	130	55	165	165
HG.S.5.760	760	650	95	1430	800	645	145	130	55	165	170
HG.S.5.775	775	650	82.5	1430	800	645	145	130	55	165	190
HG.S.5.800	800	657	98	1450	800	645	170	130	60	180	225
HG.S.5.915	915	800	95	1540	878	645	175	130	60	180	250
HG.S.5.1110	1110	1000	100	1740	878	645	180	130	70	210	300
HG.S.5.1350	1350	1200	130	1830	890	645	180	130	70	210	350

NOTE : Any special rollers of any diameters can be made on specific request.

### Attachment Type :

- ◆ Fix clevis
- ◆ Turn able clevis

### On Request :

- ◆ Swivelling Hook Attachment .
- ◆ Interchangeable Aluminium / Nylon lining sectors for bottom groove.
- ◆ Protective case for transport and stocking.



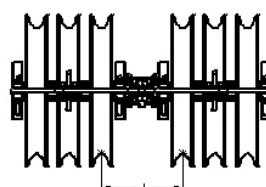
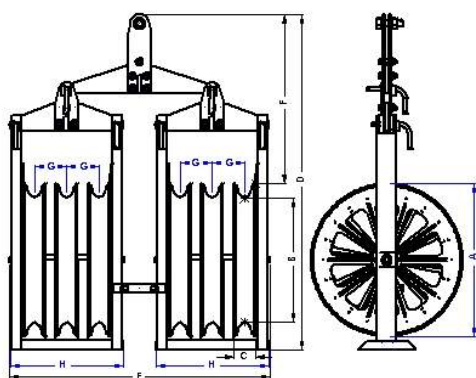
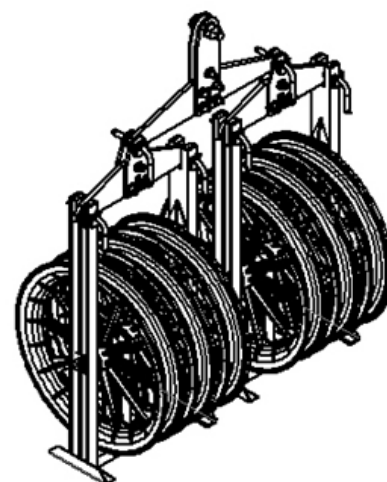
### AERIAL ROLLER FOR HELICOPTER APPLICATION

For Helicopter and aerial Application special CAM arrangement makes it easy to insert the pulling rope automatically into the pulling rope sheave. Other customized arrangement like the ball bearing hinge mechanism can be provided.

AVAILABLE IN ALL DIAMETERS AND MOUNTING ARRANGEMENTS AS PER CUSTOMERS/CONDUCTOR PAYING OUT REQUIREMENTS.

### SIX SHEAVE AERIAL ROLLER

The six sheave aerial rollers are gravity die casted aluminium alloy sheaves, which are mounted on sealed ball bearings and groove lined with neoprene/natural rubber flaps (Shore hardness 60-70 shore A with minimum thickness at bottom of the groove of 6.5 mm & tensile strength of 130-200 kg/cm<sup>2</sup>) for conductor protection. They are mounted on fixed steel frames (3+3) with standard plate attachment. They are fit for stringing 6 bundled conductors using 2 pilot



Attachment Type :

Fix clevis

Turn able clevis

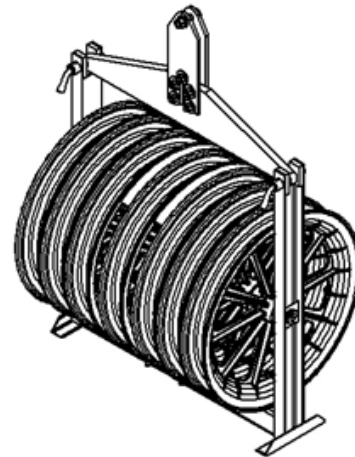
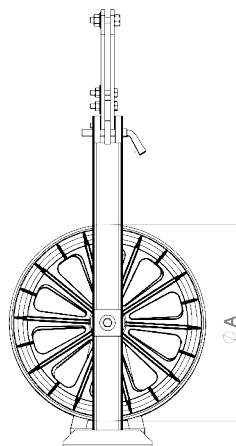
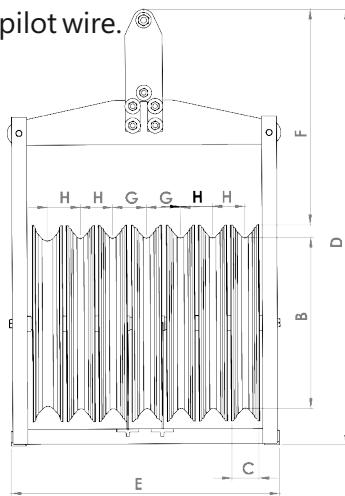
MODEL NO.	DIMENSIONS(mm)									WORKING LOAD (kN)	BREAKING LOAD (kN)	WEIGHT (Kg)
	A	B	C	D	E	F	G	H	I			
HG.S.6.66	660	573	77	1520	1200	800	170	500	400	40	120	225
HG.S.6.76	760	600	97	1530	1250	850	170	500	410	55	165	245
HG.S.6.80	800	657	98	1766	1369	891	170	590	424	60	180	290
HG.S.6.89	890	766	117	1630	1410	920	190	620	440	65	195	310

NOTE : Any special rollers of any diameters can be made on specific request.

## SEVEN SHEAVE AERIAL ROLLER

The seven sheave aerial rollers are gravity die casted aluminium alloy sheaves, which are mounted on sealed ball bearings and groove lined with neoprene/natural rubber flaps (Shore hardness 60-70 shore A with minimum thickness at bottom of the groove of 6.5 mm & tensile strength of 130-200 kg/cm<sup>2</sup>) for conductor protection. They are mounted on fixed steel frames with standard plate attachment.

They are fit for stringing 6 bundled conductors, having a central roller made of reinforced aluminium with 12 ribs, to increase the strength of the roller for carrying the load of the conductors and pilot wire.



MODEL NO.	DIMENSIONS(mm)								WORKING LOAD (kN)	BREAKING LOAD (kN)	WEIGHT (Kg)
	A	B	C	D	E	F	G	H			
HG.S.7.612	612	512	68	1330	895	645	114	100	50	155	170
HG.S.7.660	660	573	77	1400	895	45	114	108	50	155	170
HG.S.7.710	710	610	68	1430	1060	645	145	130	55	165	165
HG.S.7.760	760	650	95	1430	1060	645	145	130	55	165	170
HG.S.7.775	775	650	82.5	1430	1060	645	145	130	55	165	190
HG.S.7.800	800	657	98	1450	1100	645	170	130	60	180	250
HG.S.7.915	915	800	95	1540	1100	645	175	130	60	180	260
HG.S.7.1110	1110	1000	100	1740	1100	645	180	130	70	210	330
HG.S.7.1350	1350	1200	130	1830	1200	645	180	130	70	210	400

NOTE : Any special rollers of any diameters can be made on specific request.

### Attachment Type :

- ◆ Fix clevis
- ◆ Turn-able clevis

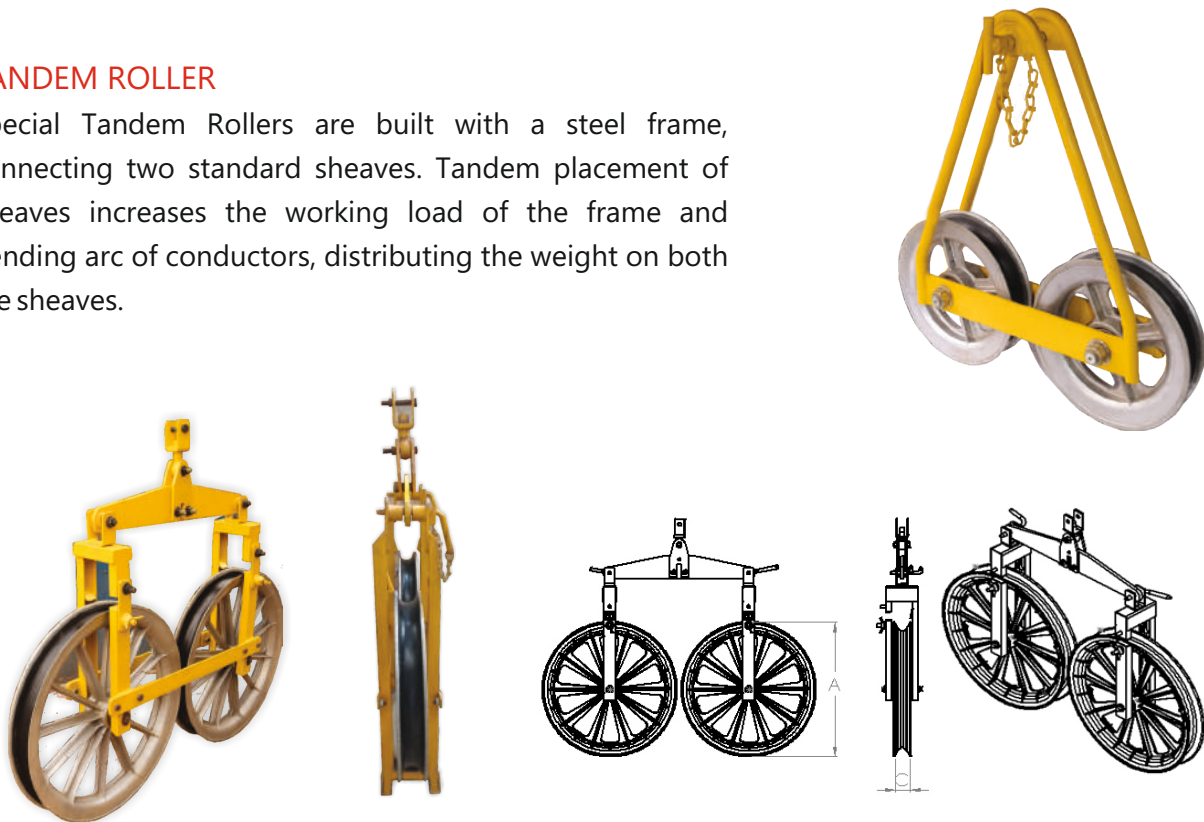
### On Request :

- ◆ Swivelling Hook Attachment .
- ◆ Interchangeable Aluminium / Nylon lining sectors for bottom groove.



## TANDEM ROLLER

Special Tandem Rollers are built with a steel frame, connecting two standard sheaves. Tandem placement of sheaves increases the working load of the frame and bending arc of conductors, distributing the weight on both the sheaves.



MODEL NO.	REFER SINGLE SHEAVE MODELS	SHEAVE DIA(mm) A Ø	SHEAVE GROOVE(mm) C	WORKING LOAD (kN)	BREAKING LOAD (kN)	WEIGHT (Kg)
HG.S.T.15	HG.S.1.15	150	49	12	36	16
HG.S.T.30	HG.S.1.30	300	46	36	108	21
HG.S.T.30.B	HG.S.1.30.B	300	62	36	108	22
HG.S.T.45	HG.S.1.45	450	70	52	156	33
HG.S.T.66	HG.S.1.66	660	77	70	210	98
HG.S.T.76	HG.S.1.76	760	95	70	210	102
HG.S.T.80	HG.S.1.80	800	98	80	240	114
HG.S.T.89	G.S.H.89	890	98	90	270	120

NOTE : Any special rollers of any diameters can be made on specific request.

### Attachment Type :

- ◆ Fix clevis
- ◆ Turn-able clevis

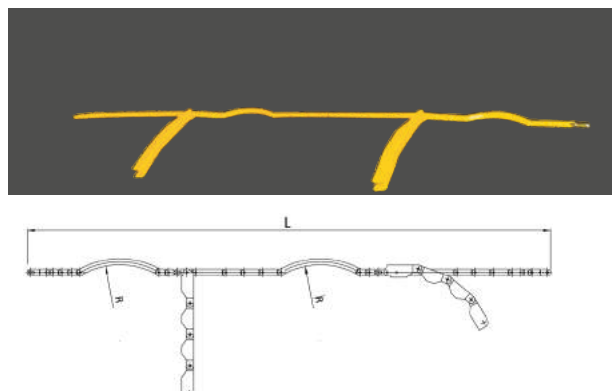
### On Request :

- ◆ Swivelling Hook Attachment .
- ◆ Interchangeable Aluminium / Nylon lining sectors for bottom groove.
- ◆ Protective case for transport and stocking.

## HEAD BOARDS

### OPTICAL GROUND-WIRE (OPGW) ANTI-TWISTING DEVICE

This device is specially designed to connect the pulling rope with an OPGW. It is composed of several jointed rods and two arched rods (to facilitate the passage on pulley) with counter weight in order to prevent torsion of OPGW



DIMENSIONS (mm)	WORKING LOAD (kN)	BREAKING LOAD (kN)	WEIGHT (Kg)	OPGW DIA. (mm)
A (Length)				
3900	10	30	60	9-17
4300	10	30	63	17-24

\* R = radius requires to be changed as per the roller dia.

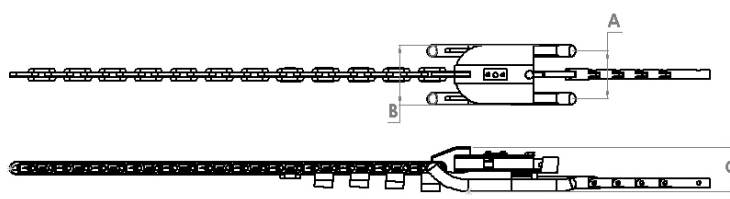
NOTE :Please specify the dia. of OPGW, groove diameter and the width of pulley block to be used, while placing an order.

### HEADBOARDS FOR SHEAVES

The headboards are designed in such a way that they can self-adjust to a correct position while passing over aerial rollers, enabling the conductors to pass through the grooves of the sheaves. The hinged tail assembly, made up of forged links (UT tested), stabilizes the headboard against lateral lifting due to wind pressure. The load carrying members like balancing pulleys, having roller bearings for high load bearing capacity, are made of heat treated alloy steel, which makes

### 2-3 BUNDLED CONDUCTOR HEADBOARDS

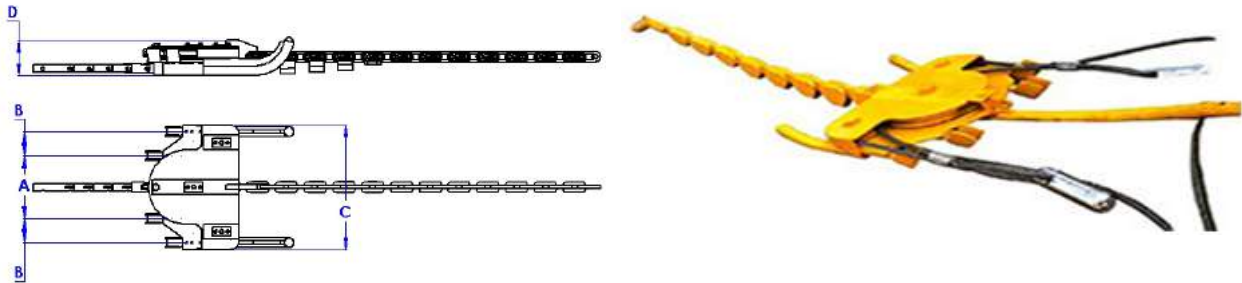
It is specially designed to connect the pulling rope with 2 or 3 bundled conductors.



MODEL NO.	DIMENSIONS (mm)			WORKING LOAD (kN)	BREAKING LOAD (kN)	WEIGHT (Kg)
	A	B	C			
HG.HB	216	261	193	93	279	89

## 4-5 BUNDLED CONDUCTOR HEADBOARDS

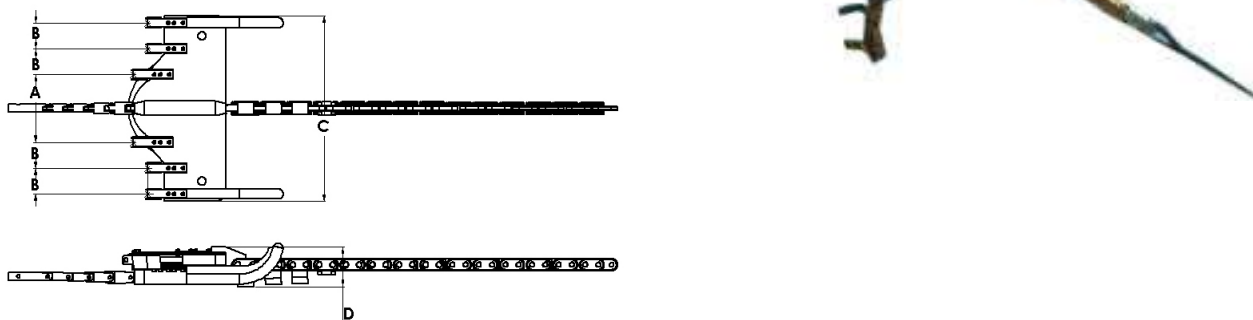
It is specially designed to connect the pulling rope with 4 or 5 bundled conductors.



MODEL NO.	DIMENSIONS (mm)				WORKING LOAD (kN)	BREAKING LOAD (kN)	WEIGHT (Kg)
	A	B	C	D			
HG.HB.05	340	130	675	194	93	279	118

## 6-7 BUNDLED CONDUCTOR HEADBOARD

It is specially designed to connect the pulling rope with 6 or 7 bundled conductors.



MODEL NO.	DIMENSIONS (mm)				WORKING LOAD (kN)	BREAKING LOAD (kN)	WEIGHT (Kg)
	A	B	C	D			
HG.HB.07	340	130	930	200	150	450	156



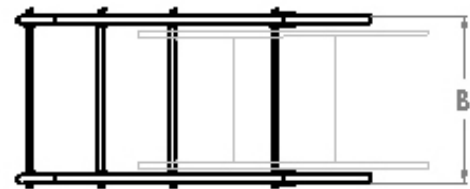
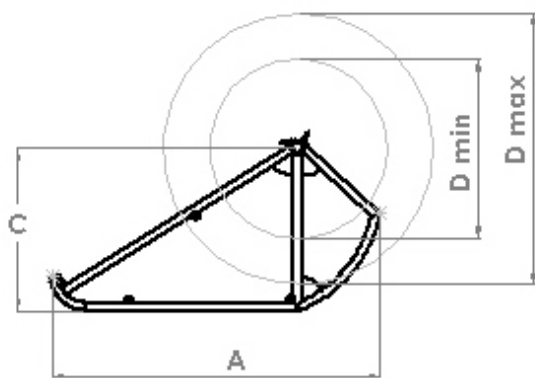
## PILOT WIRE REEL STAND & BOBBIN

### PILOT WIRE REEL STAND

It is made of welded steel with a protective coating.

Options:

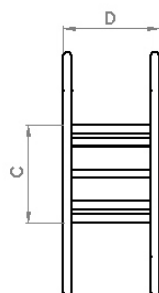
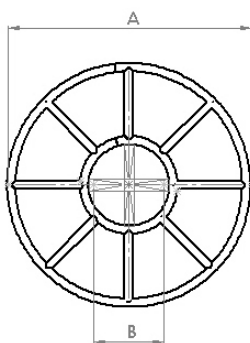
- Detachable frame
- Disc brakes



MODEL NO.	DIMENSIONS (mm)					WORKING LOAD (kN)	BREAKING LOAD (kN)	WEIGHT (Kg)
	A	B	C	D Min.	D Min.			
HG.RS	1980	950	980	700	1400	20	60	72

### PILOT WIRE BOBBIN

The reels are made of welded steel with a protective coating. Each reel is provided with two cross supports and connecting bolts.



MODEL NO.	DIMENSIONS (mm)				WEIGHT (Kg)
	A	B	C	D	
HG.WR.11	1100	420	570	550	60
HG.WR.14	1400	420	570	550	80

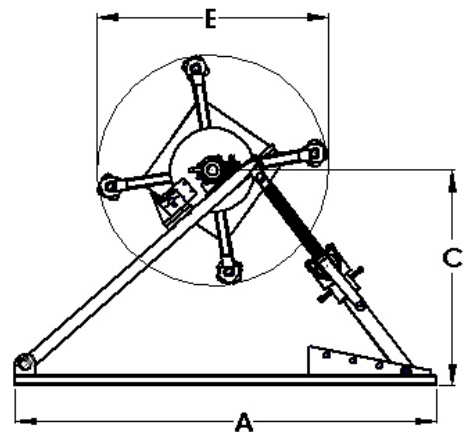
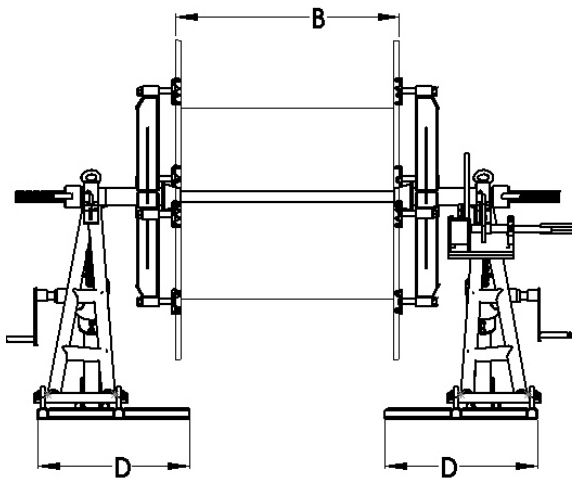
## REEL ELEVATOR

They are suitable for paying out conductor/earth wire/OPGW cables.

They are made up of welded steel with a protective coating. Each reel elevator is provided with supports like fixed wedges for clamping the wooden/steel conductor drum and mechanical disk braking system for controlling the rotational speed of the drum while paying out the conductor. The frame is completely detachable, enabling easy transportation.

Optional devices

- Additional disc brake (2 brakes in total)
- Hydraulic Jack could be provided in lieu of



MODEL NO.	DIMENSIONS (mm)						WORKING LOAD (kN)	BREAKING LOAD (kN)	WEIGHT (Kg)
	A	B	C (min.)	C (max.)	D	E			
HG.RE.05T	1800	1186	677	1087	647	1194	49	147	340
HG.RE.08T	1800	1350	720	1180	716	1200	79	237	410
HG.RE.15T	2000	1350	720	1180	716	2200	98	294	483

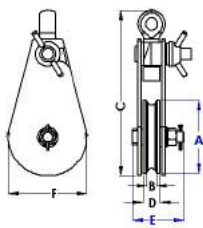
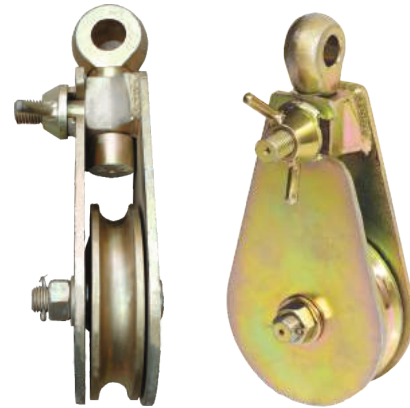
\* Note: Reel Elevator, suitable for conductor drum with a larger diameter can also be made on specific request.

## SNATCH BLOCKS

### OPEN TYPE

The service snatch block is made of a galvanized steel sheave mounted on double ball bearings. The sheave is flame hardened to 35 HRC, which protects the groove from erosion due to a regular usage of wire ropes, considerably extending the life of the pulley. The sheave is mounted on a galvanized steel frame with an openable side and a standard eye hook attachment.

Note : Special models are available upon request.

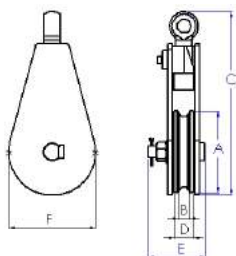


MODEL NO.	DIMENSIONS (mm)						WORKING LOAD (kN)	BREAKING LOAD (kN)	WEIGHT (Kg)
	A	B	C	D	E	F			
*HG.P.O.5T	127	24	294	32	91	137	49	196	6
HG.P.O.5T	150	24	339	36	105	160	49	196	8
HG.P.O.10T	165	25	364	39	105	175	98	392	11

### CLOSE TYPE

The service snatch block is made of a galvanized steel sheave mounted on double ball bearings. The sheave is flame hardened to 35 HRC, which protects the groove from erosion due to a regular usage of wire ropes, considerably extending the life of the pulley. The sheave is mounted on a galvanized steel frame with a standard eye hook attachment.

Note : Special models are available upon request.



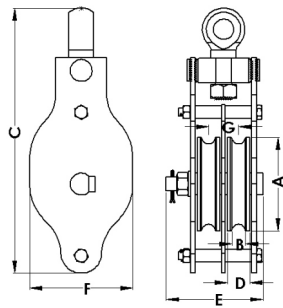
MODEL NO.	DIMENSIONS (mm)						WORKING LOAD (kN)	BREAKING LOAD (kN)	WEIGHT (Kg)
	A	B	C	D	E	F			
*HG.P.C.5T	127	24	294	32	91	137	49	196	6
HG.P.C.5T	150	21	339	36	105	160	49	196	8.2
HG.P.C.10T	165	25	364	39	105	175	98	392	10.8



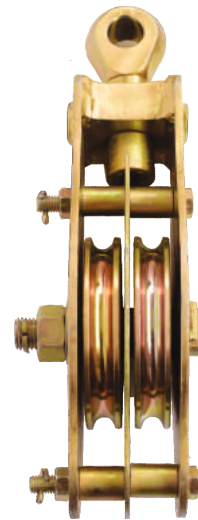
## DOUBLE SHEAVE

The service snatch blocks are made of galvanized steel sheaves mounted on double ball bearings. The sheaves are flame hardened to 35 HRC, which protects the groove from erosion due to a regular usage of wire ropes, considerably extending the life of the pulley. The sheaves are mounted on a galvanized steel frame with a standard eye hook attachment.

Note: Special models are available upon request.

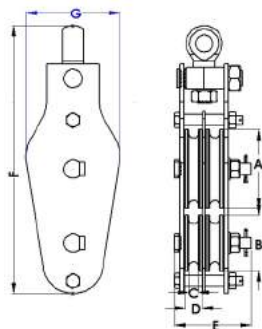


MODEL NO.	DIMENSIONS (mm)							WORKING LOAD (kN)	BREAKING LOAD (kN)	WEIGHT (Kg)
	A	B	C	D	E	F	G			
HG.P.D.5T.	127	14	375	23	127	144	33	49	196	09
HG.P.D.9.5T.	150	22	425	36	155	165	48	98	392	16



## FOUR SHEAVE

The service snatch blocks are made of galvanized steel sheaves mounted on double ball bearings. The sheaves are flame hardened to 35 HRC, which protects the groove from erosion due to a regular usage of wire ropes, considerably extending the life of the pulley. The sheaves are mounted on a galvanized steel frame with a standard eye hook attachment.



MODEL NO.	DIMENSIONS (mm)							WORKING LOAD (kN)	BREAKING LOAD (kN)	WEIGHT (Kg)
	A	B	C	D	E	F	G			
*HG.P.F.LW.5T	127	96	16	23	116	463	142	49	196	12.6
HG.P.F.9.5T	150	106	14	20	103	508	177	98	392	22

\*light weight pulley on single ball bearings



NOTE : Application of Eye attachment with D Shackle available for all snatch blocks mentioned above.

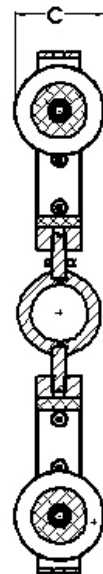
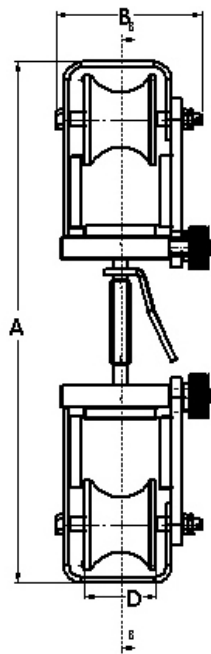


## HANGING PULLEY

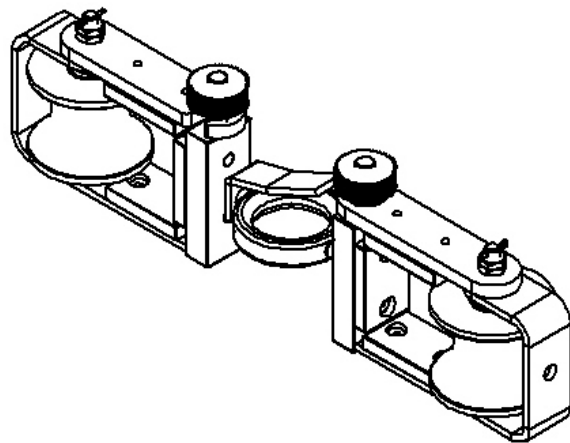
The cradle block is specially designed for replacing the existing ground wire (GW) with optical grounding wire (OPGW) cables.

It is made of two galvanized steel half-frames linked by a ring with a swivel plate.

Each half frame consist of one grooved aluminium wheel mounted on ball bearings, three nylon plates to protect the OPGW cables, and easy to open sides.



SECTION B-B

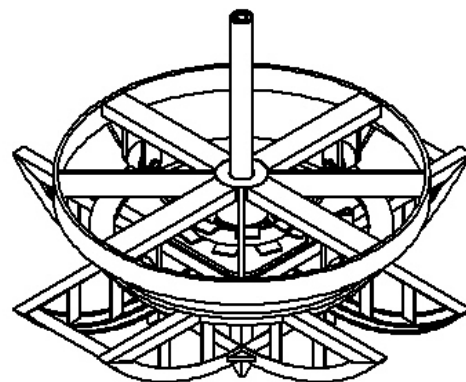
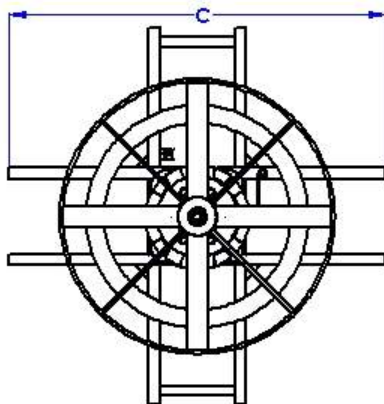
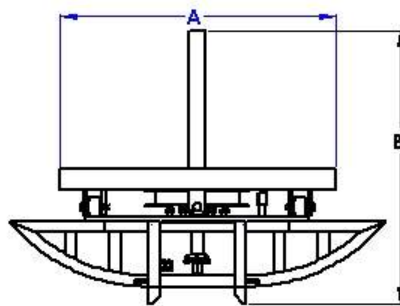


MODEL NO.	DIMENSIONS (mm)			WORKING LOAD (kN)	BREAKING LOAD (kN)	WEIGHT (Kg)
	A	B	C			
HG.HP.0AL	377	106	65	02	06	2.4

## TURN TABLE

Turn Tables are made up of welded steel with a protective coating. They are suitable for placing the conductor drum in an upright position for a smooth release of the conductor, while paying out.

Turn Table braking arrangement is provided.



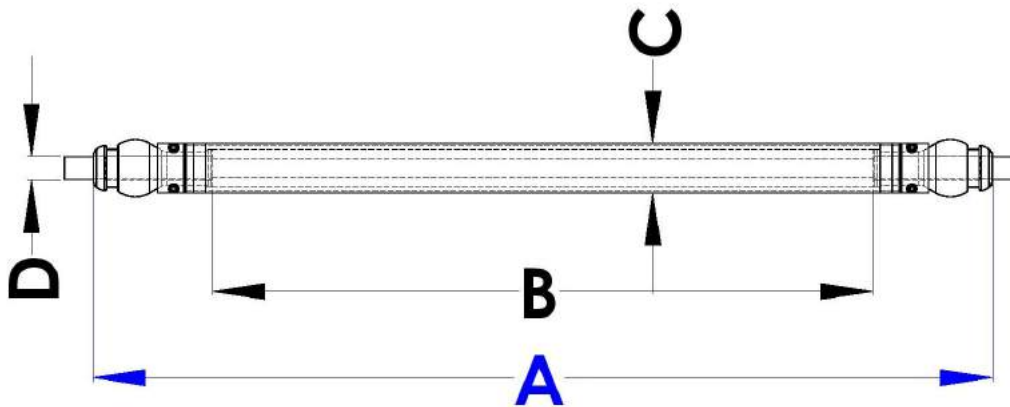
MODEL NO.	DIMENSIONS (mm)			WORKING LOAD (kN)	BREAKING LOAD (kN)	WEIGHT (Kg)
	A	B	C			
HG.TT.05T	990	982	193	49	147	190
HG.TT.07T	1011	261	193	74	222	260
HG.TT.10T	1046	261	193	98	294	410



## COVER JOINTS / JOINT PROTECTOR

They are specifically designed to protect the mid span joint made at the "Tensioner Station", during conductor stringing operations.

The cover joints consist of two shells made of special seamless pipe with shaped ends to house rubber hoses, as per the conductor requirement, centre free space as per conductor hexagonal crimp, and mid span joint lengths (after compression).



Model No.	A (mm)	B (mm)	C (mm)	D (mm) upto Dai	WORKING LOAD (kN)	BRAKING LOAD (kN)	WEIGHT (Kg)
HG.JP.Z	1095	805	61	28	7	20	7
HG.JP.M	1204	864	72	32	7	20	12
HG.JP.B/L	1321	974	84	39	7	20	18

Wherein,

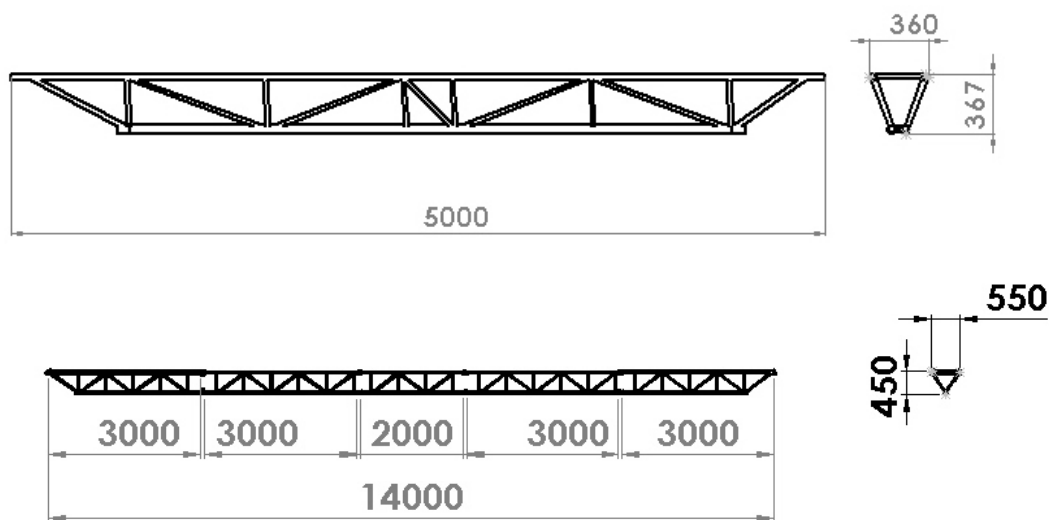
1. L=joint length after compression.
2. D=conductor diameter.
3. Hex=the hexagon dimension of mid span joint after compression.

## SUSPENSION PLATFORM

Suspension platforms are made of light aluminium alloy in triangular and trapezoidal section, welded by TIG system.

All the platforms are provided with the provision for anti-fall barrier.

NOTE: Special suspension platforms can be built with extra length and strength upon request.

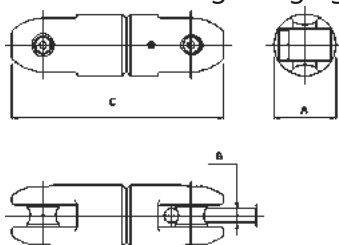


MODEL NO.	TOTAL LENGTH(m)	LATERAL SECTION LENGTH(m)	CENTRAL SECTION LENGTH(m)	WORKING LOAD (kN)	BREAKING LOAD (kN)	WEIGHT (Kg)
HG.SP.05M	5	----	-----	6	18	60
HG.SP.16M	16	5.5 + 5.5	5	6	18	150
HG.SP.26M	26	5.5 + 5.5 + 5.5 + 5.5	4	6	18	240

## SWIVEL JOINTS

The swivel joints are suitable for connecting the pulling rope to the mesh sock joint mounted on the conductor. They are mounted on thrust bearings and are designed to avoid torsion strain accumulation.

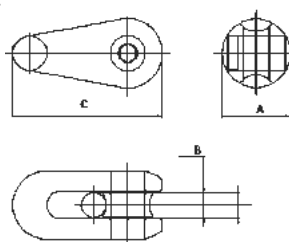
They are made of highly tensile galvanized steel. The special design can bear the high radial loads which occur during stringing.



MODEL NO.	DIMENSION			WORKING LOAD (kN)	BREAKING LOAD (kN)	WEIGHT (Kg)
	A	B	C			
HG.SJ.03T	36	17	137	10	30	0.7
HG.SJ.11T	36	15	145	37	110	0.8
HG.SJ.22T	45	20	177	74	220	1.2
HG.SJ.36T	60	25	228	122	360	3.4

## PILOT WIRE CONNECTORS

The connectors are specifically designed to connect the pilot rope lengths/pulling rope lengths and to pass over the puller/puller-tensioner bull wheel groove. They are made of high tensile galvanized steel.



MODEL NO.	DIMENSION (mm)			BREAKING LOAD (kN)	WEIGHT (Kg)
	A	B	C		
HG.PC.7T	59	28.2	10	7	0.13
HG. PC.11T	72.5	41	13	11	0.33
HG.PC.16T	90.5	48.5	16	16	0.53
HG.PC.22T	100.5	56	18	22	0.75
HG.PC.36T	119.5	60	24	36	1.03
HG.PC.75T	174	76.5	28	75	3.03

## CRIMPING DIE SETS

Crimping dies are manufactured using high-grade steel with high precision and accuracy on CNC machines and are further heat treated to a hardness of 60 HRC. CNC Grinders are used for super finishing.

We offer dies for all conductor sizes and various types of power joint compression machines, with a 12 months' manufacturer's warranty.

### 100 / 200 T ZECK / SANWA TEKKI like Power Joint Compression machine



### 100/110/160 T POWER COM like Power Joint Compression machine



### 100/120/184 T TESMEC like Power Joint Compression machine



### 35 T KUDOS Power Joint Compression machine

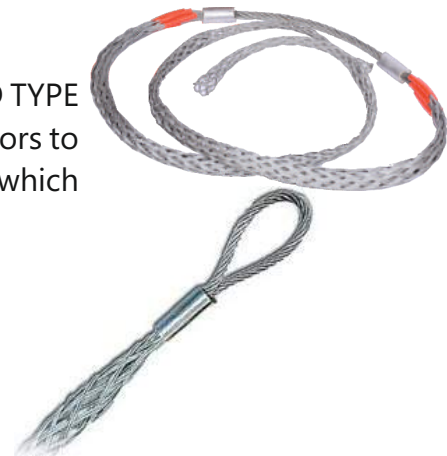
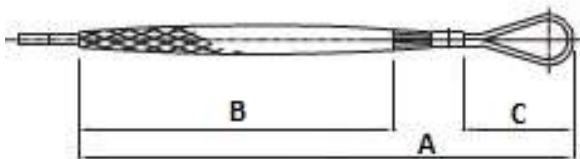




## PULLING GRIPS (SOCKS)

### SINGLE HEAD

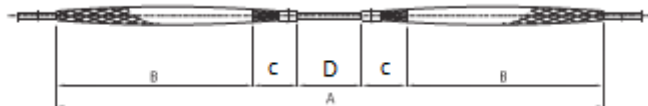
The pulling grips are specifically designed in SINGLE HEAD TYPE to temporarily connect aluminum / steel / copper conductors to the pulling rope. They consist of variable pitch steel wire, which effectively distribute the gripping effect on the conductors.



MODEL NO.	CONDUCTOR DIA. (mm)	DIMENSION (mm)			WORKING LOAD (kN)	BREAKING LOAD (kN)	WEIGHT (Kg)
		A	B	C			
HG.S1.2T	8-17	1400	1100	160	12	36	0.7
HG.S2.8T	17-29	1700	1360	180	28	84	1.3
HG.S4.3T	29-38	1900	1470	230	43	129	2.1
HG.S6T	38-50	2270	1820	250	60	180	2.7

### DOUBLE HEAD

The pulling grips are specifically designed in DOUBLE HEAD TYPE to temporarily connect aluminum / steel / copper conductors to the pulling rope. They consist of variable pitch steel wire, which effectively distribute the gripping effect on the conductors.



MODEL NO.	CONDUCTOR DIA. (mm)	DIMENSION (mm)				WORKING LOAD (kN)	BREAKING LOAD (kN)	WEIGHT (Kg)
		A	B	C	D			
HG.S1.2T	8-17	2860	1100	140	200	12	36	1.2
HG.S2.8T	17-29	3240	1360	160	200	28	84	2.3
HG.S4.3T	29-38	3540	1470	200	200	43	129	3.6
HG.S6T	38-50	4240	1820	200	200	60	180	4.8

## TURN BUCKLE

Turn Buckle comes in a seamless tube body, having modified square threads on end fittings for improved fatigue properties. Turnbuckle eyes are forged elongated by design to maximize easy attachment in system and minimize stress in the eye.



MODEL NO.	CAPACITY (ton)	DIMENSION (mm)			WORKING LOAD (ton)	BREAKING LOAD (ton)	WEIGHT (Kg)
		Body	Open	Close			
HG.TB.3T	3	860	1733	1077	3	9	6.5
HG.TB.5T	5	860	1799	1123	5	15	9.2
HG.TB.10T	10	860	1839	1183	10	30	16
HG.TB.12T	12	860	1845	1189	10	30	19

## KITTO CLAMP

These clamps are used wherever self gripping of the steel wire rope is required. The clamps are assembled from various alloy steel forged parts. The dimensions of grooves depend upon the diameter of the wire rope that has to be gripped.



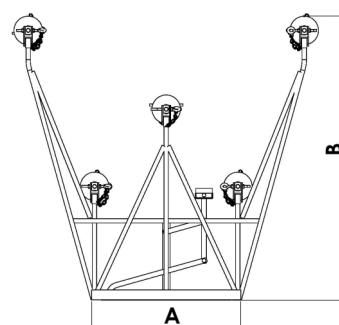
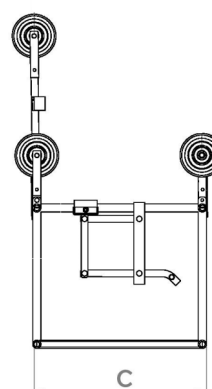
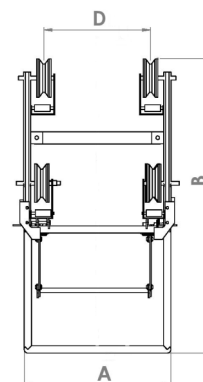
## FLAT CLAMP/ PATTA CLAMP

These clamps are used for clamping the earth wire. The bodies of these clamps are made up of alloy steel. The dimensions of the grooves of the clamps are kept according to the diameter of the earth wire. The bolts are made up of high tensile steel.



## SPACER TROLLEY

Inspection line trolley fit for 2-4-6 bundle conductor lines is made of MS/Aluminium structure with Poly Urethane lined aluminium sheaves mounted on ball bearing.



MODEL NO.	LINE TYPE	LENGTH (A)	HEIGHT (B)	WIDTH (C)	WEIGHT (Alu./Ms)
HG.ST.2.	TWIN	610	710	630	20/38 Kg
HG.ST.4.	QUAD	610	1228	630	24/44 Kg
HG.ST.6.	HEXA	766	1444	1080	55/100 Kg

\* **D (Spacer Width)** will be manufactured as per requirement.

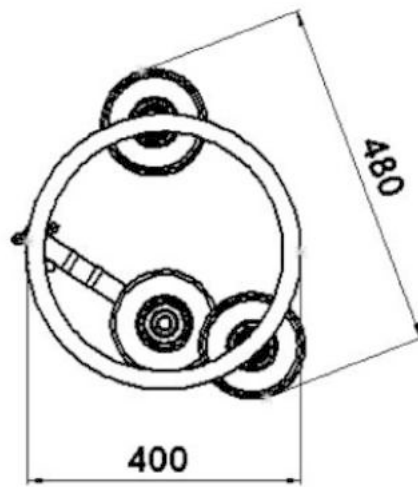
### Optional devices:

- Distance meter
- Conductor clamp.

## RUNNING EARTHS

This Grounding device is used during Stringing operations and is designed for conductors and Ropes. Copper grounding wire (50mm<sup>2</sup>) section for connection to the ground is provided. Can provide special groove and diameter as per conductor/rope as per applicable guide lines.

**HGAC RE 001**

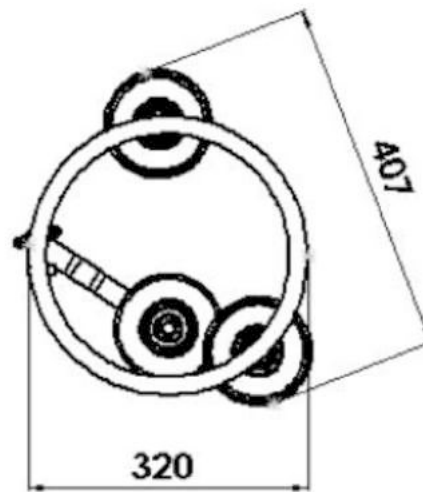


**HGAC RE 001**

**Characteristics**

Mass	6 kg
Groove width	55 mm

**HGAC RE 002**



**HGAC RE 002**

**Characteristics**

Mass	16 kg
Groove width	70 mm
Suitable for anti-twisting device model RFF001	





## TESTING FACILITY

We are having in-house testing facility and our testing lab is equipped with :

**UNIVERSAL TESTING MACHINE (UTM)**



**ROCKWELL & BRINELL HARDNESS TESTER**



**ULTRASONIC TESTING MACHINE (UT)**



**AERIAL ROLLER SHEAVE TEST BENCH**

**MAGNETIC PARTICLE INSPECTION (MPI)**



**TENSILE TESTING FOR RUBBER, POLY URETHANE, NYLON AND OTHER POLYMERS".**



## AUTOMATIC CLAMP USAGE PROCEDURES

### Dead-Ending

1. Set up the ratchet hoist and automatic clamp as shown here.
2. Ratchet the hoist until the cable is lined up with the dead-end fixture.
3. After the tension is approximately where it will need to be after termination, ratchet the hoist a couple more times to accommodate for tension loss after hoist removal. Consult conductor specifications to ensure the maximum conductor tension is not exceeded.
4. When finished, break the tension using the hoist handle, then use either the handle or drum knob to continue releasing the tension.



### Sagging

1. Set up ratchet hoist, automatic clamp and dynamometer as shown here.
2. Ratchet the hoist until the dynamometer displays the desired tension. Consult conductor specifications or company procedures to determine the appropriate tension.
3. When finished, break the tension using the hoist handle, then use either the handle or drum knob to continue releasing the tension.



### Splicing

1. Set up ratchet hoist and automatic clamps as shown here.
2. Connect the Web Strap Ratchet Hoist to each clamp, and ratchet to the desired tension to make the splice.

The conductor can now be spliced according to standard work procedures and material guidelines.

3. When finished with the splice, break the tension using the hoist handle, then use either the handle or drum knob to continue releasing the tension



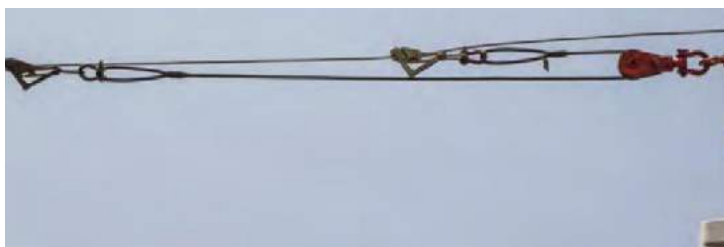
## LOAD DISTRIBUTION

For applications where the maximum load exceeds the safe load of an individual automatic clamps, or the cable is at risk of deformation, it is recommended to use two automatic clamps in tandem. Using two clamps in tandem divides the weight load between both the clamps, allowing for an effective work load increase of 1.5 times the safe load of each individual clamps.

For example: Two Automatic Clamp **HG 0832**, each with a maximum safe load of 19,980 lbs. (9,990 kg) individually, have a combined working safe load of 29,970 lbs. (14,985 kg).

In some transmission applications there is a risk of cable deformation under high tensions. To avoid this risk, using two clamps in tandem is recommended if:

- **ACSR or AAC conductors** – the load is expected to exceed the lesser of 12,500 lbs. (5,670 kg) or 40% of the conductor tensile strength.
- **ACSS conductors**—the load is expected to exceed the lesser of 10,000 lbs. (4,536 kg) or 40% of the conductor tensile strength.



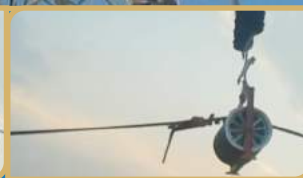
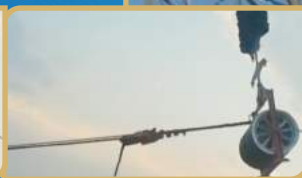
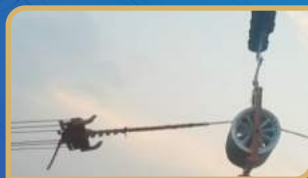
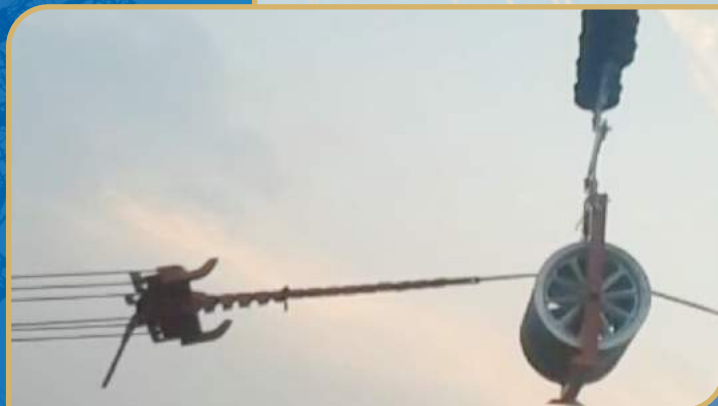
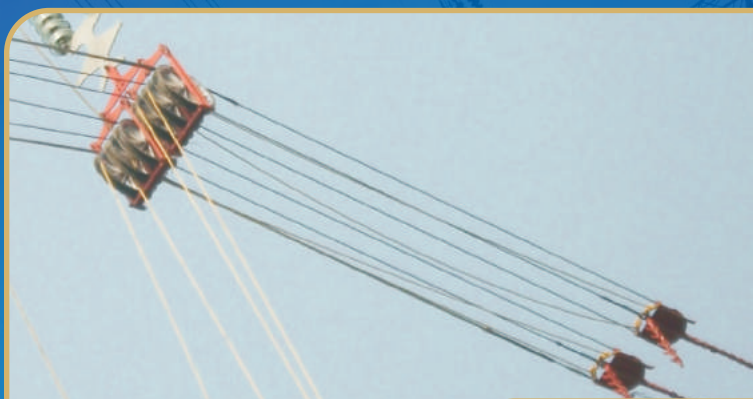
1. Place each automatic clamp on the same conductor, approximately five feet apart.
2. Connect a pulley block (levelling block) to the eye or U-Bend of each clamp. This will maintain equal distribution of the weight load between both clamps.
3. Connect an anchored chain hoist of appropriate capacity to the block as shown in the image above.
4. Ratchet the chain hoist to the desired tension, as shown in the image below.



**Material Used :** Two automatic clamps, ratchet hoist, dynamometer ,chain hoist & pulley block.

Disclaimer: This is not intended to be a definitive instructional manual for completing the applications. Always consult company procedures and conductor guidelines before attempting any application.





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