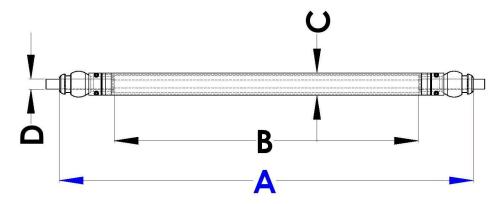


## **COVER JOINTS / JOINT PROTECTOR**

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.



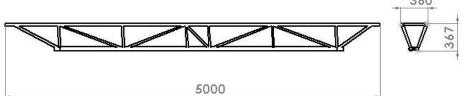
## SUSPENSION PLATFORM

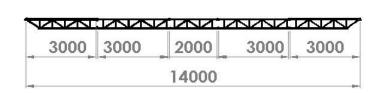
Suspension platforms are made of light aluminium alloy in triangular and trapezoidal section, welded by TIG system.

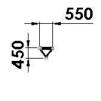
All the platforms are provided with the provision for anti-fall barrier.

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









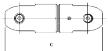
MODEL NO.	TOTAL LENGTH(m)	LATERAL SECTION LENGTH(m)	CENTRAL SECTION LENGTH(m)	WORKING LOAD (kN)	BREAKING LOAD (kN)	WEIGHT (Kg)
HG.SP.05M	5			6	18	60
HG.SP.16M	16	5.5 + 5.5	5	6	18	150
HG.SP.26M	26	5.5 + 5.5 + 5.5 + 5.5	4	6	18	240

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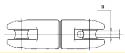
## **SWIVEL JOINTS**

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.









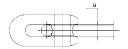
MODEL NO		DIMENSION		WORKING	BREAKING	WEIGHT
MODEL NO.	A	В	С	LOAD (kN)	LOAD (kN)	(Kg)
HG.SJ.03T	36	17	137	10	30	0.7
HG.SJ.11T	36	15	145	37	110	0.8
HG.SJ.22T	45	20	177	74	220	1.2
HG.SJ.36T	60	25	228	122	360	3.4

## 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 (mr	n)	BREAKING LOAD	WEIGHT (Kg)	
MODEL NO.	Α	В	С	(kN)		
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	

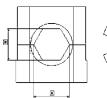


# **CRIMPING DIE SETS**

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

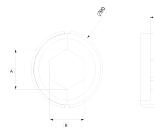








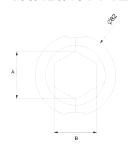
#### 100/110/160 T POWER COM like Power Joint Compression machine







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

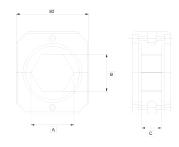








#### 35 T KUDOS Power Joint Compression machine



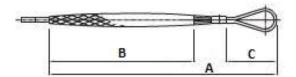




# **PULLING GRIPS (SOCKS)**

#### SINGLE HEAD

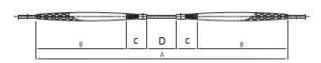
The pulling grips are specifically designed in SINGLE HEAD TYPE to temporarily connect aluminum / steel / copper conductors to the pulling rope. They consist of variable pitch steel wire, which effectively distribute the gripping effect on the conductors.

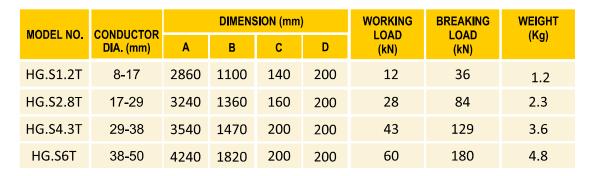


MODEL NO	COMPLICTOR	DIMENSION (mm)			WORKING	BREAKING	WEIGHT
MODEL NO.	CONDUCTOR DIA. (mm)	Α	В	С	LOAD (kN)	LOAD (kN)	(Kg)
HG.S1.2T	8-17	1400	1100	160	12	36	0.7
HG.S2.8T	17-29	1700	1360	180	28	84	1.3
HG.S4.3T	29-38	1900	1470	230	43	129	2.1
HG.S6T	38-50	2270	1820	250	60	180	2.7

#### **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.







## 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	CADACITY	DIMENSION (mm)			WORKING	BREAKING	WEIGHT
MODEL NO.	CAPACITY (ton) Body Open Close (ton)			LOAD (ton)	(Kg)		
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

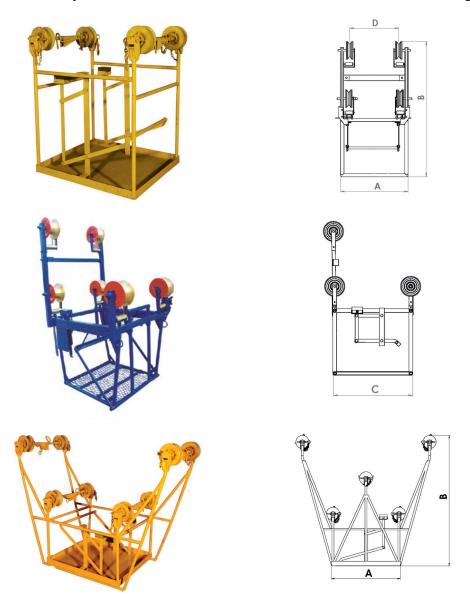
These clamps are used for clamping the earth wire. The bodies of these clamps are made up of alloy steel. The dimensions of the grooves of the clamps are kept according to the diameter of the earth wire. The bolts are made up of high tensile steel.





# 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

<sup>\*</sup> **D** (**Spacer Width**) will be manufactured as per requirement.

#### **Optional devices:**

- Distance meter
- Conductor clamp.

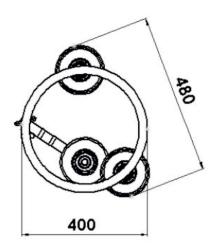


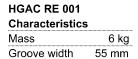
# **RUNNING EARTHS**

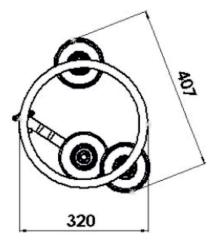
This Grounding device is used during Stringing operations and is designed for conductors and Ropes. Copper grounding wire (50mm²) section for connection to the ground is provided. Can provide special groove and diameter as per conductor/rope as per applicable guide lines.

**HGAC RE 001** 









**HGAC RE 002** 

Characteristic	s	
Mass	16 kg	
Groove width	70 mm	
Suitable for ant	i-twisting o	device mode
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 URETAHNE, NLYON 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.
- 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**

- 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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