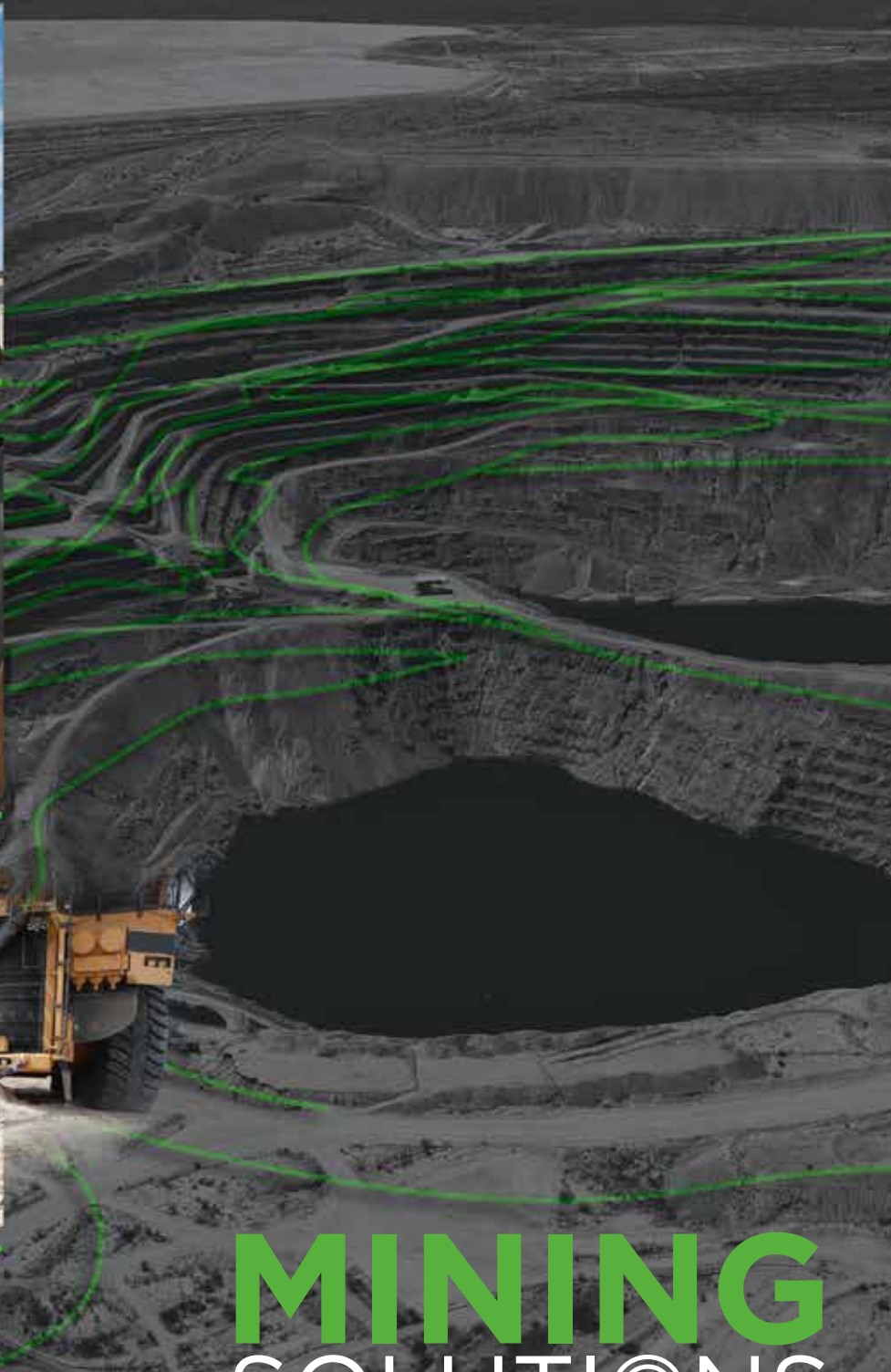




# Holloway

LIFTING & RIGGING SOLUTIONS



# MINING SOLUTIONS





### Bending Guidance

In theory, a sling used in a basket configuration could have twice the working load as a sling in a vertical configuration because two ropes are now holding the load instead of one. However, the decrease in tensile stress is partially offset by an increase in bending stress. The magnitude of this bending stress is dependent on the size and shape of the contact surface. Users must account for the bending strength loss with an efficiency factor as shown below in the Reduced Basket Capacity Calculation.

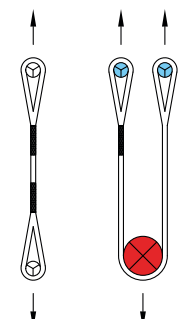
The bending efficiency reduces as the D:d ratio is reduced. Example: a 5:1 D:d ratio provides 80% efficiency.


**Reduced Basket Capacity Calculation**  
 $C = B \times e$


**C = Reduced Basket Capacity due to bending efficiency reduction**

**B = Rated Basket Capacity with consideration of horizontal sling fleet angle**

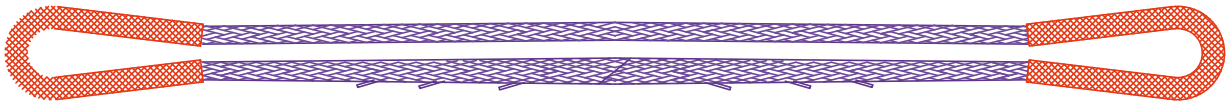
**e = Bending efficiency percentage**



 Represents a contact surface that is equal to or greater than the rope diameter

 Represents a contact surface with a D:d ratio of one or greater. Refer to the Efficiency Table for deductions as needed.

Efficiency Table	
D:d Ratio	eff % (e)
25:1	100.0%
8:1	82.5%
5:1	80.0%
3:1	75.0%
2:1	72.5%
1:1	65.0%



### Bending Guidance

In theory, a sling used in a basket configuration could have twice the working load as a sling in a vertical configuration because there are double the number of supporting strands. However, the decrease in tensile stress is partially offset by an increase in bending stress. The magnitude of this bending stress is dependent on the size and shape of the contact surface. Users must account for the bending strength loss with an efficiency factor as shown below in the Reduced Basket Capacity Calculation.

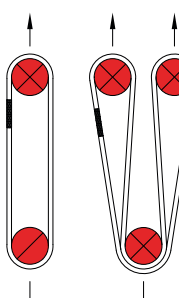
The bending efficiency reduces as the D:d ratio is reduced. Example: a 5:1 D:d ratio provides 97% efficiency.


**Reduced Basket Capacity Calculation**  
 $C = B \times e$

**C = Reduced Basket Capacity due to bending efficiency reduction**

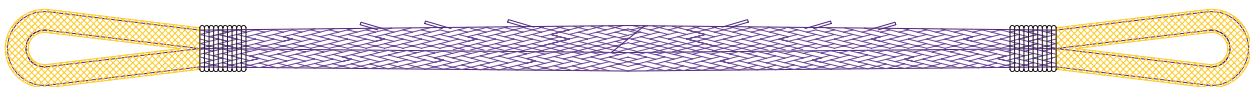
**B = Rated Basket Capacity with consideration of horizontal sling fleet angle**

**e = Bending efficiency percentage**



 Represents a contact surface with a D:d ratio of one or greater. Refer to the Efficiency Table for deductions as needed.

Efficiency Table	
D:d Ratio	eff % (e)
8:1	100.0%
5:1	97.0%
3:1	91.0%
2:1	88.0%
1:1	79.0%



### Tow Cables fabricated with Plasma<sup>®</sup> rope, Grommet style (endless loop with formed eyes)

Part No.	Nominal Size		Minimum Break Load (MBL)		Eye Sizes Each End	Standard Length		Approx. Wt. per Cable		Target Vehicles
	Dia. inch	Dia. mm	lbs	Te (tonnes)		ft	m	lbs	kg	
T310G-25SST	5/8"	16	84,000	38	18"	25	7.6	5	2.3	Light Vehicles
T312G-25SST	3/4"	18	113,025	51	18"	25	7.6	7	3.2	Light Vehicles
T314G-25SST	7/8"	22	152,790	69	18"	25	7.6	10	4.5	Light Vehicles
T316G-25SST	1"	24	181,500	82	18"	25	7.6	16	7.3	Light Vehicles
T324G-30SST	1-1/2"	36	364,650	165	24"	30	9.1	36	16.3	Medium Vehicles & D6-8 dozers
T3332G-30SST	2"	48	585,750	266	36"	30	9.1	85	38.6	770-780 series CAT trucks & D-9 dozers
T3340G-30SST	2-1/2"	60	874,800	397	36"	30	9.1	103	46.7	790 series CAT Trucks & D-10/11 dozers