Loads and Deflections:

United Interlock® Grating – Galvanized Steel, 12-Inch Wide Planks

Leg Height (inches)	Gauge		DISTANCE BETWEEN SUPPORTS (FEET)								
			2	2.5	3	3.5	4	4.5	5	5.5	6
2½"	18	UL	750	600	500	370	285	225	180	150	127
		UD	.04	.07	.11	.16	.20	.25	.31	.37	.44
		CL	560	560	560	560	560	500	455	415	380
		CD	.02	.04	.07	.11	.16	.20	.25	.30	.35

Key: UL = Uniform load (pounds per square foot)
UD = Deflection under uniform load (inches)
CL = Concentrated load (pounds applied to three rungs)
CD = Deflection under concentrated load (inches)

Design Considerations

Light-Traffic Areas

Floor areas immediately adjacent to racks, shelves, conveyors, etc., are generally loaded by light traffic. Ends of aisles, single aisles, etc. are further examples of light-traffic areas. These and similar areas are satisfactorily covered by economical 12" grating.

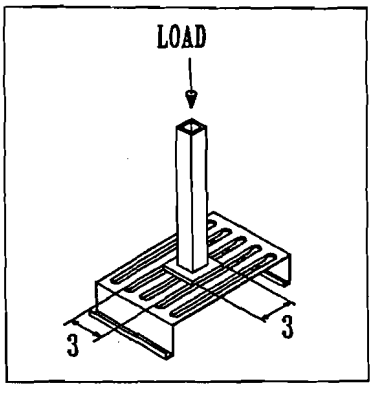
Floor area beneath package conveyors or other material-handling devices are typically subject to little or no loading. However, for safety reasons, these areas must be covered. The use of 12" plank grating in these areas provides an economical floor covering that can also be used as a load-bearing floor, if requirements change.

Point (Concentrated) Loads

Point loads should be distributed over a minimum of (2) transverse ribs, regardless of what size or gauge plank grating is utilized.

Good design practice for point loading plank grating employs a "foot" plate at the load point with a minimum dimension of 3" x 3". This plate will assure that the point load has been distributed over the 2 transverse-rib minimum.

Maximum point load per rib on 12" x 18 Ga. steel plank grating is 185 lbs. As a result, through the use of the required 3" x 3" "foot" plate, a maximum design load for the minimum-dimension foot plate is 370 Lbs.



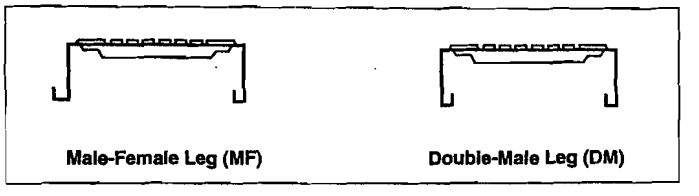
Higher loads can be supported by the transverse ribs. However, larger "foot" plates will be required to distribute the higher loads over additional ribs.

High-Traffic Areas

12" Plank Grating is designed to provide an economical lightweight floor surface for light-traffic areas. Maintenance platforms, access ways and roofwalk applications are examples of areas where 12" grating is the best economical choice.

However, innovative designers may also employ 12" grating in combination with other grating widths and gauges to lower overall installed costs for high-traffic applications.

For example, mezzanines and aisles for stock storage are typically high-traffic zones. Within these areas are floor sections that receive little or no traffic, but must be covered for safety reasons. Center aisle areas are generally the highest-traffic locations. As a result, grating in these areas must have higher fatigue strengths. Higher fatigue strengths are available utilizing narrow, high-strength 6" or mid-range 9" width grating.



Dimensions, Gauges, Surfaces and Finishes

PART NO.	GAUGE	LEG HEIGHT	LEG SHAPE	FINISH	SURFACE
G 11281	18	2½"	DM	PG	SLOTTED
G 12281	18	2½"	MF	PG	SLOTTED
G 11282	18	2½"	DM	PG	ANTI-SKID
G 12282	18	2½"	MF	PG	ANTI-SKID