#### SOUTHWESTS OLUTIONS GROUP

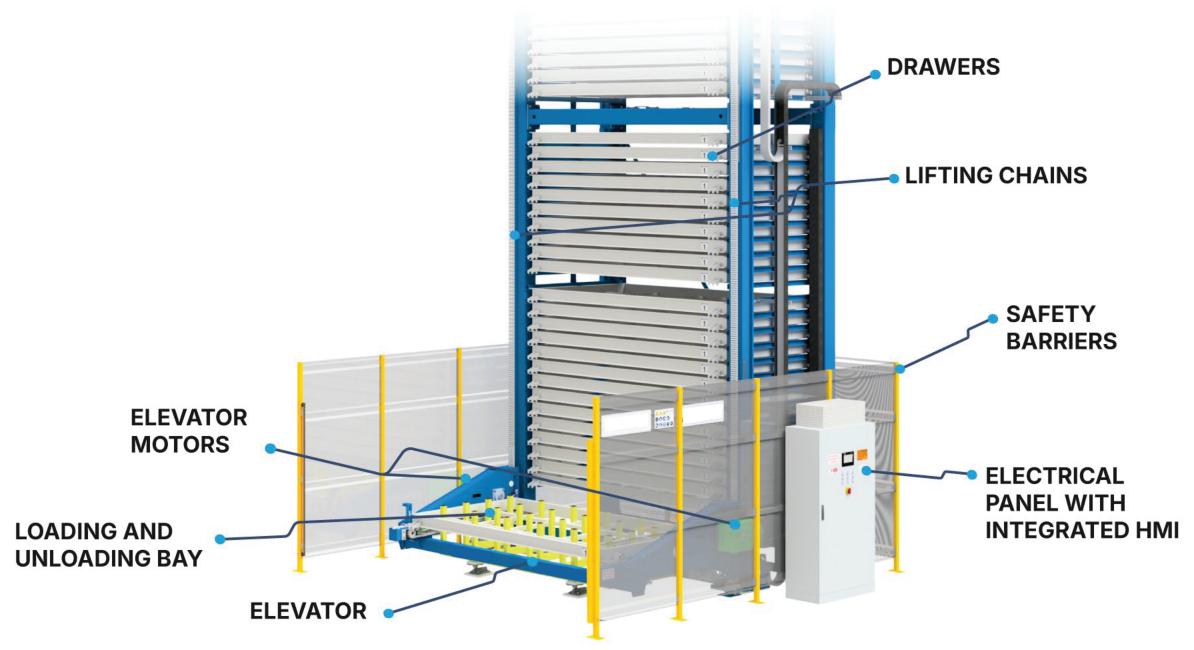


Automatic Storage Systems for Bars,Tubes and Profiles SSG's automated storage systems organizes and optimizes the storage of sheet metal and long material vertically, reducing floor space, and material handling in complete safety.

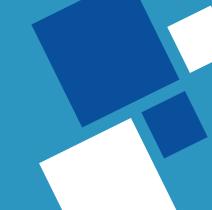








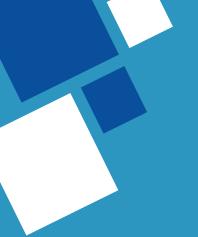
### BARS, TUBES & PROFILES MODELS







Drawers lenght	da 3000 mm a 12000 mm (from 10 ft to 40 ft)
Drawers width	da 400 mm a 2000 mm (from 1.3 ft to 6.5 ft)
Loading height	da 250 mm a 1000 mm (from 0.8 ft to 3.3 ft)
Load capacity	1500 – 3000 - 5000 kg each drawer (3,300 – 6,600 – 11,000 lbs each drawer)



### BARS, TUBES & PROFILES CONFIGURATIONS









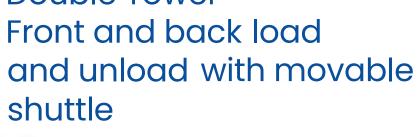


Double Tower front load and unload with movable shuttle







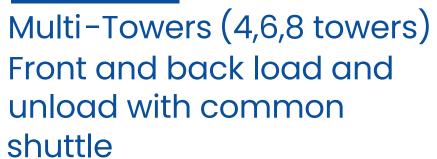








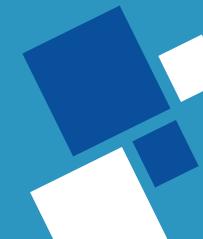








### DRAWER TYPES





#### Drawers:

- Closed bottom
   and sides (for shorter bars
   and cut outs)
- Open bottom and closed sides (full lenght bars and tubes)
- Fully open with perimeter pins (accessible with forklifts and suitable for bundles of profiles and tubes)











# BARS LOADING AND UNLOADING CONFIGURATIONS

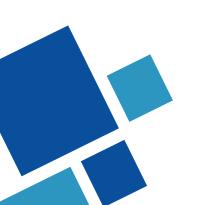


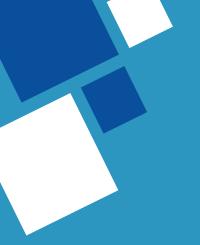




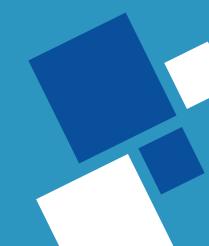
Loading and unloading bay with mouvable shuttle for bars, tubes, and profiles







## STORAGE SYSTEM DIMENSIONS AND LOADS









Single tower, sheet metal, tubes & bars maximum height: 12 m (40 ft)









Double tower, sheet metal, tubes & bars maximum height: 16 m (52 ft)



### Maximum Drawer Load Capacity:

1. Bars | 5000 kg (11,000 lbs)

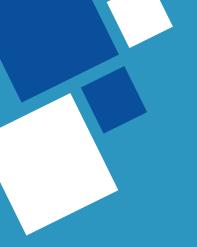


2. Bundles | 5000 kg (11,000 lbs)









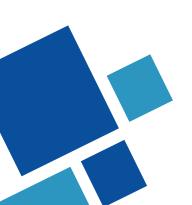
### INDOOR AND OUTDOOR VERSIONS





### Indoor version





Outdoor version with custom integrated enclosure and wall pass-through shuttle for indoor load and unload







# MECHANICAL AND CONSTRUCTION FEATURES





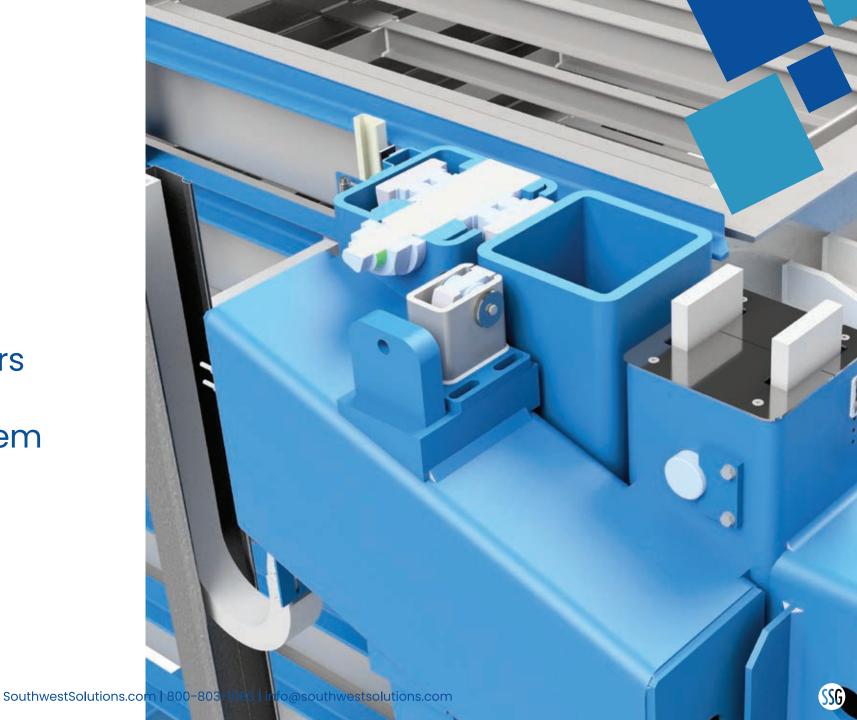
Dual motor lift for speed and precision



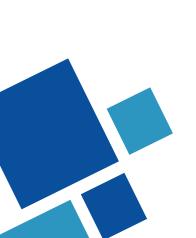


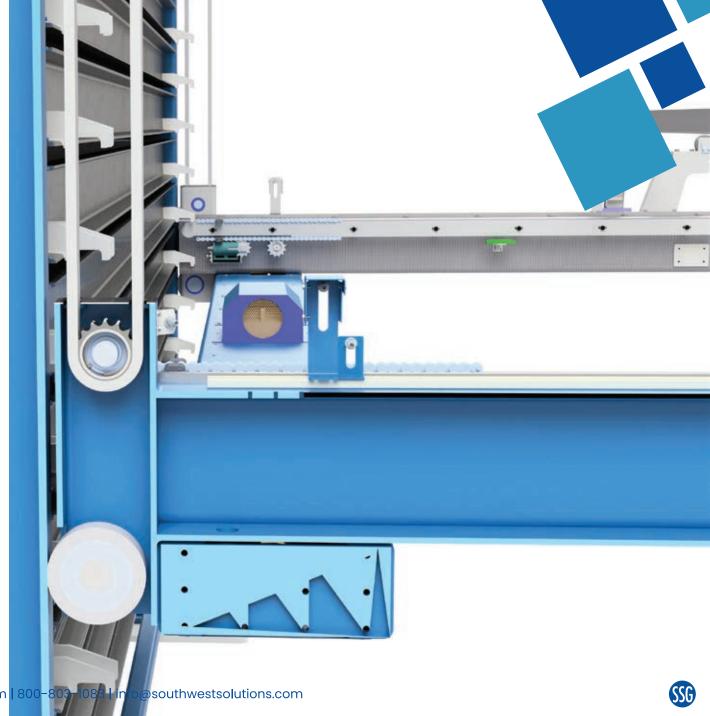
Tower construction
Heavy duty 16 mm
(0.63 in) thick tubulars
for reliability and
durability of the system



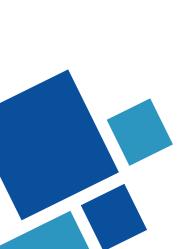


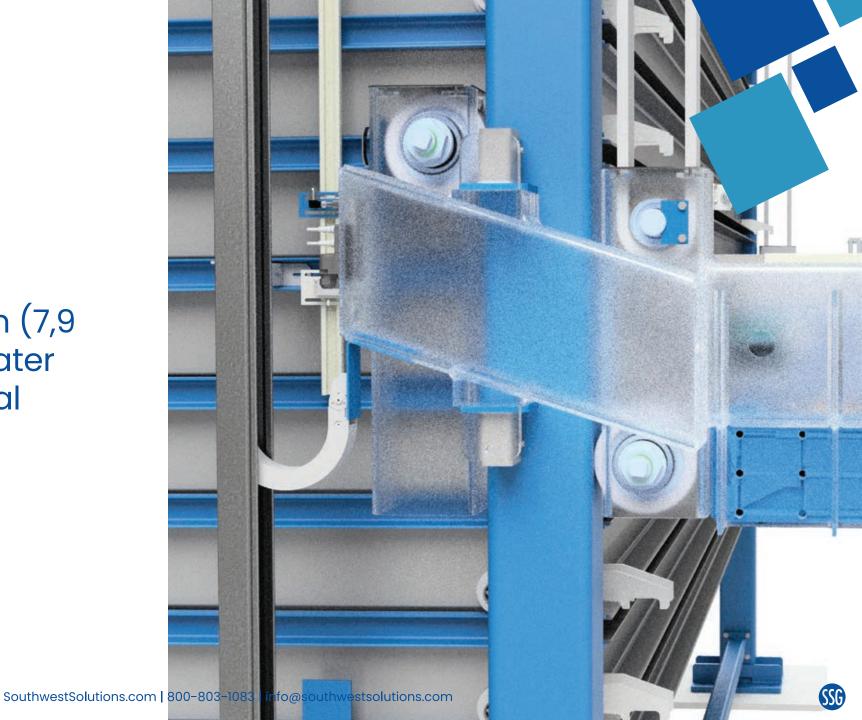
Arm construction Heavy duty 12 mm (0.5 in) thick tubulars for reliability and durability of the system





Sliding wheels
Heavy-duty 200 mm (7,9
in) diameter for greater
rigidity and structural
strength





### SHUTTLE GUIDES

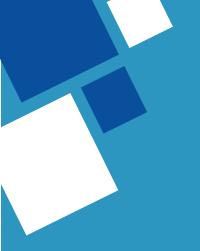


Underground shuttle guides



Surface shuttle guides





## SAFETY FEATURES & ACCESSORIES

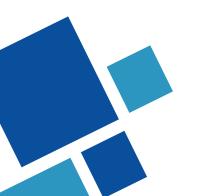




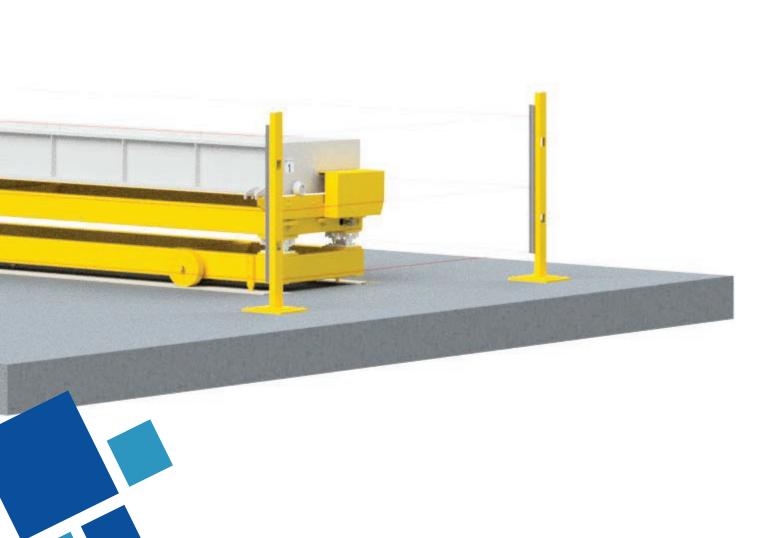
#### **SAFETY**

Physical perimeter protections (safety guards)









#### SAFETY

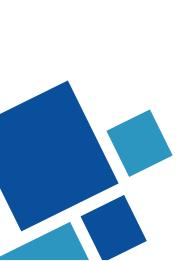
Optical perimeter protections (photoelectric barriers or laser scanners)



#### SAFETY

### 3 configurations of safety optical barriers:

- 1. Single tower with perimetral barriers to prevent incidents with elevator.
- 2. Double tower with shuttle, mounting shortened safety guards and light curtains configured with manual shuttle exit trough dead man button.
- 3. Double tower with shuttle, mounting extended safety guards and light curtains configured with automated shuttle exit.





### SENSORS



Wire encoder for maximum precision



Drawer leveling and alignment sensors



### ACCESSORIES



Load cells to monitor the maximum weight allowed inside the drawer



Barcode Reader



### **ACCES** SORIES



Depalletizer for sheet metal

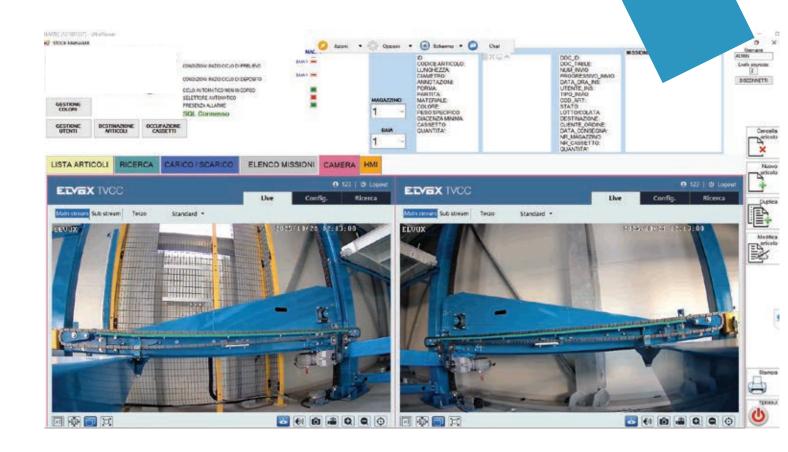


HMI touch screen and 21" screen for warehouse WMS software



#### **ACCESSORIES**

WMS software to manage and organize material quantities and types









### SOUTHWESTSOLUTIONSGROUP

### THANKS FOR YOUR ATTENTION

