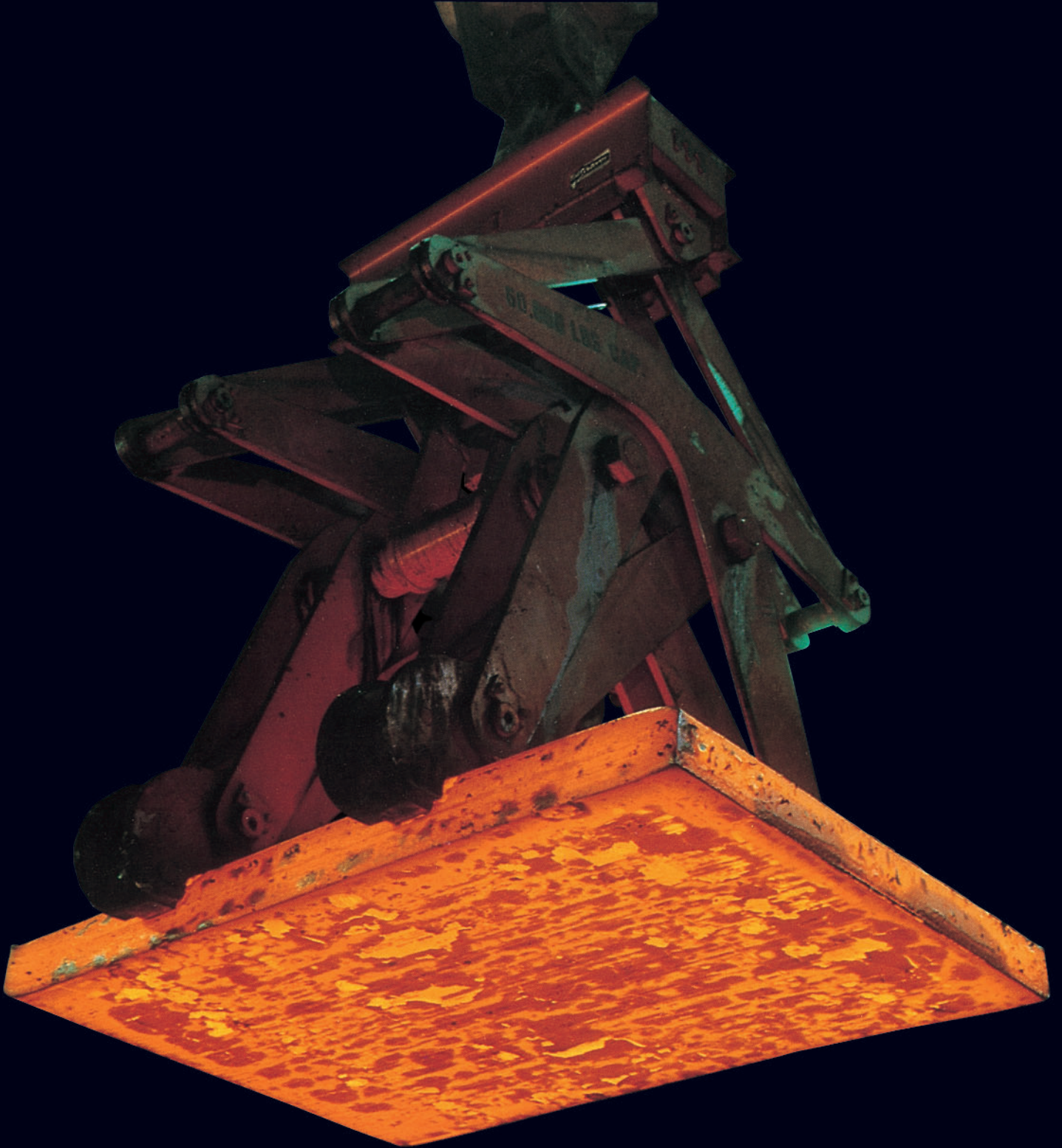


mansaver[®]

GRABS



mansaver® -the answer to your below-the-hook lifting requirements!

The leading name in mechanical grabs worldwide is *MANSAYER*. Years of continuous research and development have resulted in a line of grabs that meets nearly every lifting or handling need in all types of industries.

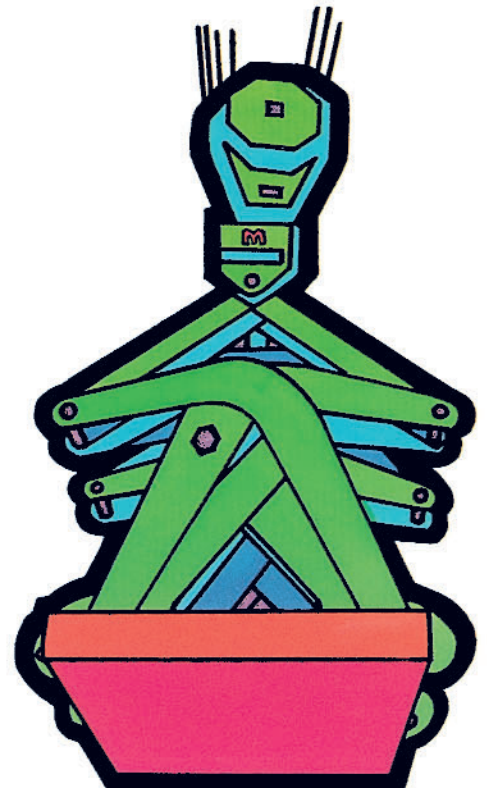
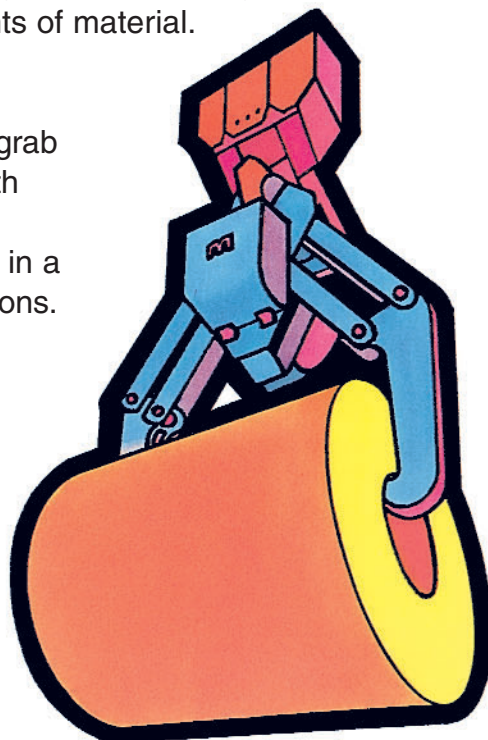
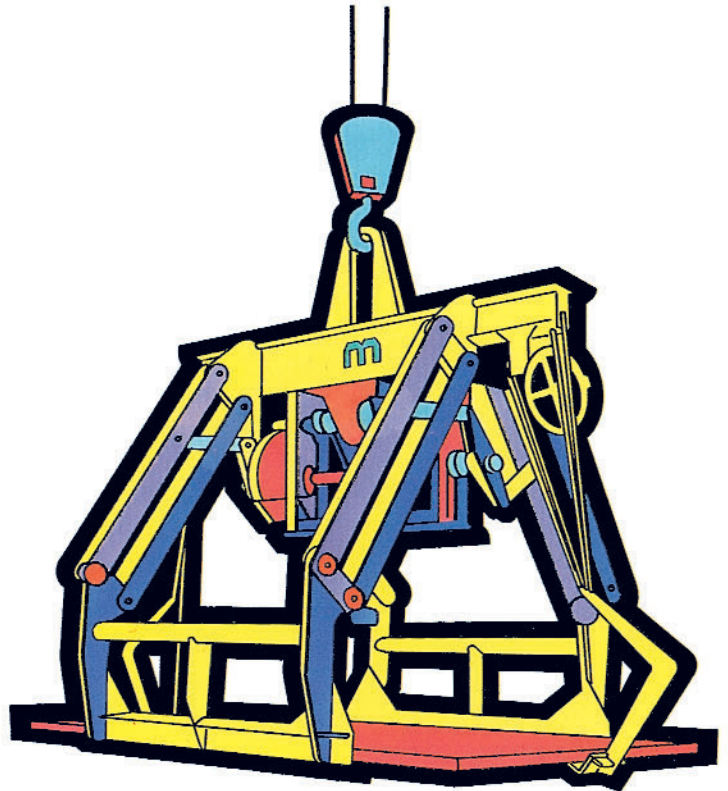
STANDARD GRABS in our broad line include grabs for handling:

- Metal coils (horizontal or vertical)
- Sheet and plate
- Pallets
- Baled paper, cloth, etc.
- Barrels and drums
- Paper rolls

These grabs are available in a wide range of capacities and sizes, in both motorized and completely mechanical models. Radio control is also available.

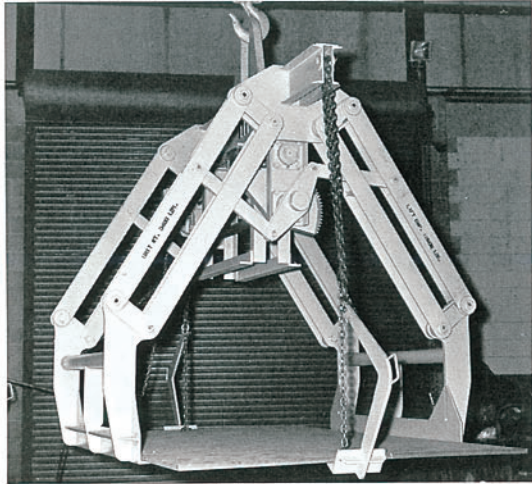
ENGINEERED SYSTEMS for applications requiring a special lifting device. We can provide an engineered grab to solve a specific handling need. Our engineers have designed hundreds of such grabs for handling all sizes, shapes, and weights of material.

On the following pages are grab selection considerations, with photographs illustrating *MANSAYER* grabs in action in a variety of industrial applications.

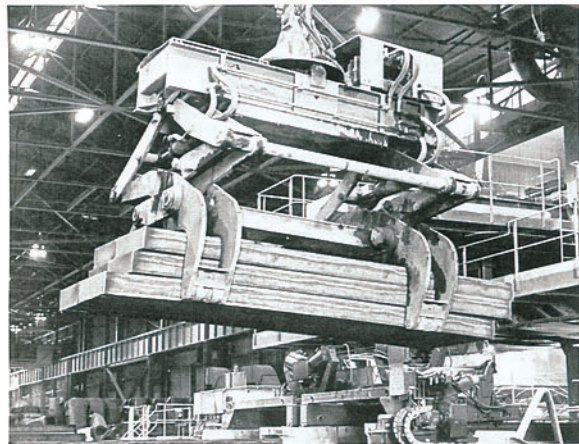


JUSTIFICATION

Grabs provide fast efficient movement, handling and stacking of a wide variety of products for storage and in-process operations. They help decrease handling costs, reduce material waste, facilitate production, and optimize use of



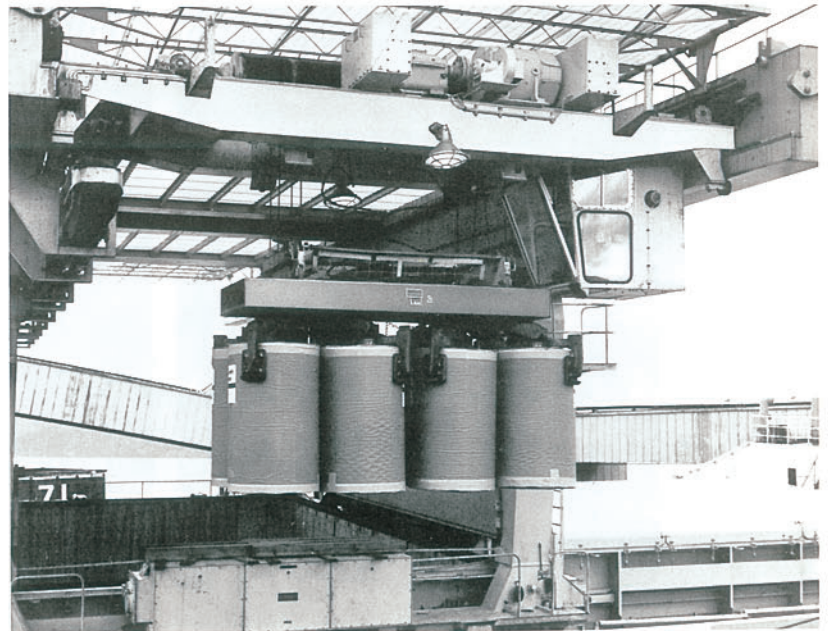
◀ A.



◀ B.



C.▲



D.▲

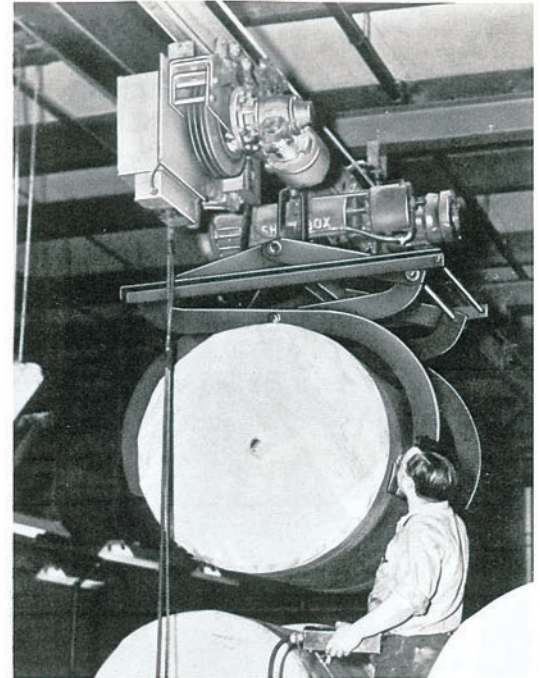
valuable floor space. Equipment can be justified in one or more of the following ways:

- Reduction of material damage
 - Increased production
 - Safety
 - Manpower reduction/substitution
 - Alien environment
 - Only feasible way
- A. A wide range of sheet widths, lengths and load weights are handled by this *MANSAYER* parallelogram sheet grab. Since the carrying legs are always vertical, minimal aisle space is required between stacks. Both motor driven and manually operated models are available.
- B. Single or multiple stacks of slabs can be lifted or transferred with this *MANSAYER* slab grab. Designed for heavy duty mill service, this grab can be specified for loads up to 150 tons.
- C. A *MANSAYER* multiple-gang, telescoping leg coil grab can easily move a number of coils for processing.
- D. This *MANSAYER* paper roll grab is capable of handling two to eight rolls simultaneously. It features a telescoping leg design and mechanical gripping.

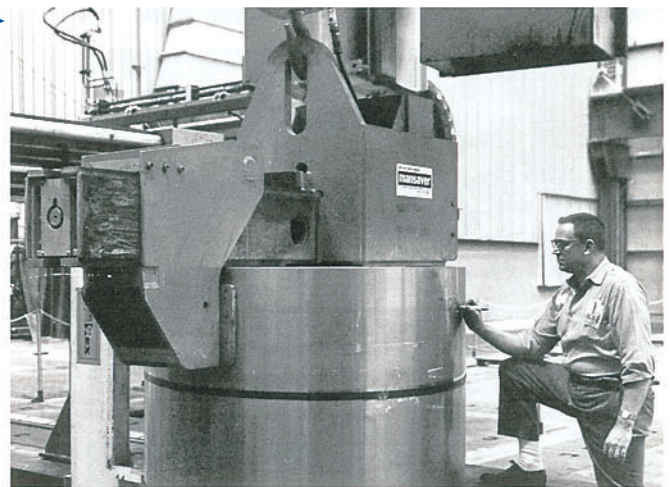
TYPICAL MANSAVER APPLICATIONS

- A. A *MANSAVER* semi-automatic diametral gripping grab is recommended for paper rolls with diameter variations up to 30 percent of the maximum size.
- B. This *MANSAVER* vertical coil grab uses a rack and gear lever design for lifting pressure on a wide range of coil sizes. It's a motorized grab often used on low headroom applications.
- C. Hot slabs above 2000° F are easily handled by this 60,000 pound capacity *MANSAVER* grab. A 75 ton WRIGHT double girder bridge crane carries the grab.
- D. A *MANSAVER* tray grab handles annealing trays holding up to 10 finished aluminum coils. The 125 ton capacity grab has narrow legs, permitting close tray storage.

A. ▶



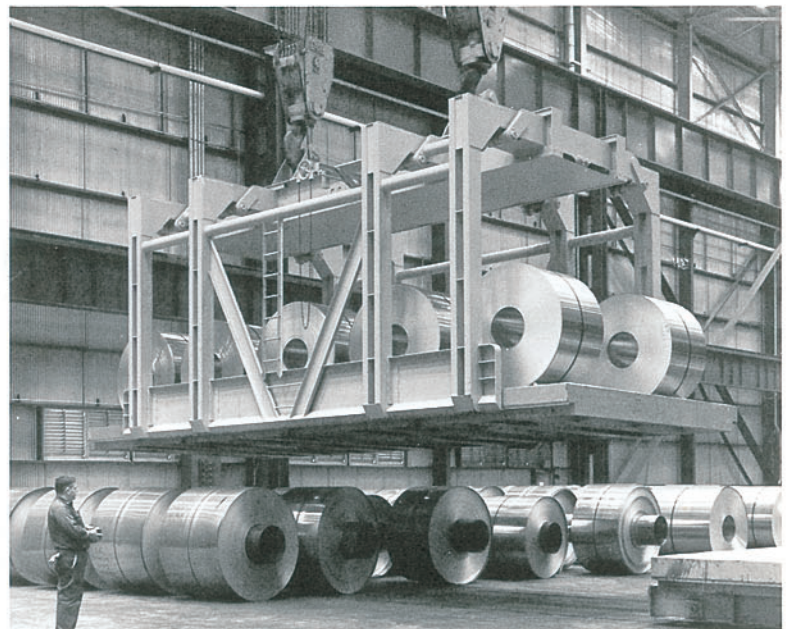
B. ▶



C. ▼



D. ▼



GRAB SELECTION CONSIDERATIONS

Specifying below-the-hook lifting devices requiring a complete knowledge of the load to be handled. The load may be large or small, heavy or light, flat or curved, hot or cold, wet or dry, rugged or fragile and in single or multiple quantities. It may

require attachment and movement in certain time and space parameters...all while reducing costs, and most importantly, considering the safe handling of the load.

ATTACHEMENT

The first operation of a grab is to attach to the object being lifted or handled. There are two basic methods of attachment:

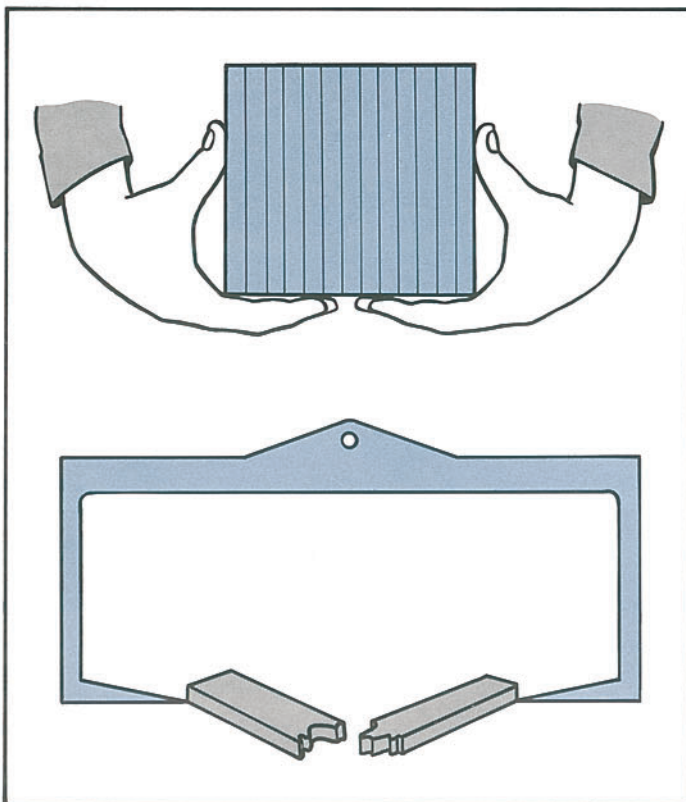
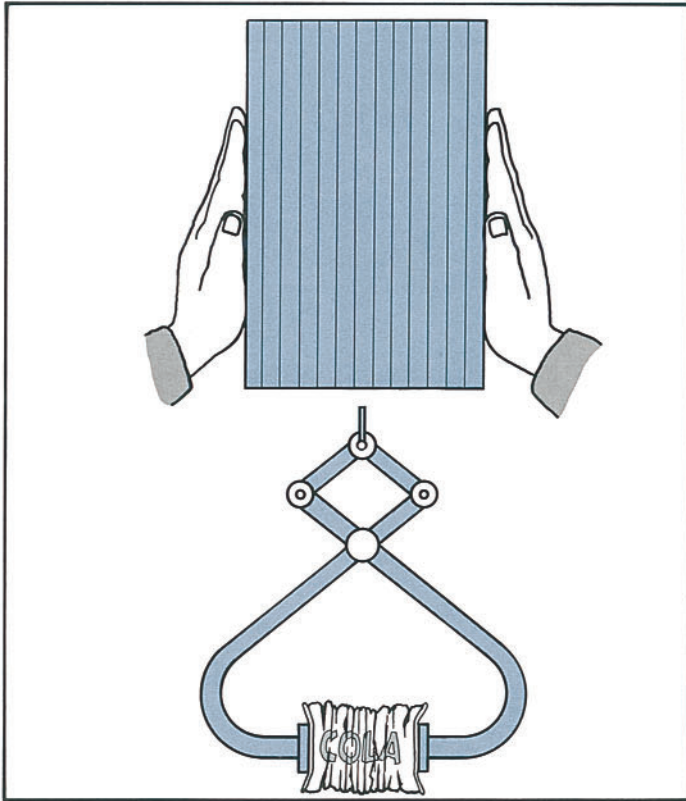
1. Pressure Gripping

This method applies pressure evenly against the edges of the object. The load must have enough structural integrity to withstand the gripping without deformation or collapse.

2. Load Supporting

fingers, ledges, or forks support the load with this method. The load must have enough structural integrity to support its own weight across its length and width.

In both attachment methods, load distribution and radical deflection are key considerations.



MOVEMENT

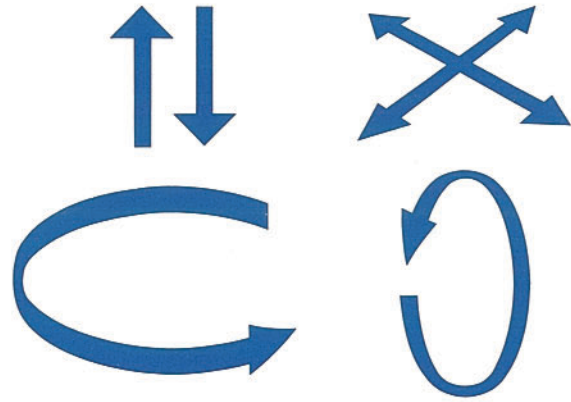
Once the grab is attached, the load is ready to be moved. The two basic requirements for movement are:

1. The move must be made within production rates.
2. The material must be moved within required tolerances.

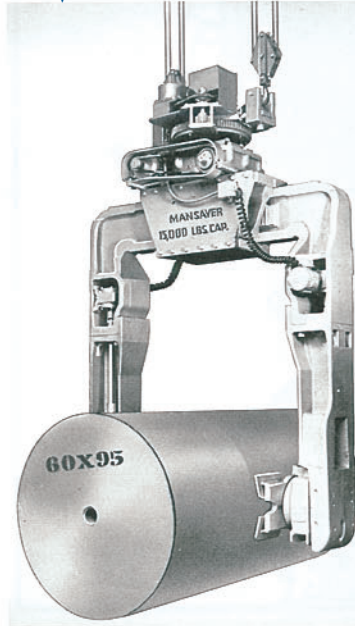
Movement Directions

Load movement is possible in many different directions. Movement may be accomplished by the grab itself or in combination with the material handling device to which it is hooked. It can simply be an up-down movement using a hoist, X-Y axis in one plane with a bridge or gantry crane, horizontal rotation on a vertical axis using a rotating crane hook, vertical rotation on a horizontal axis with a rollover, or a combination of all these movements.

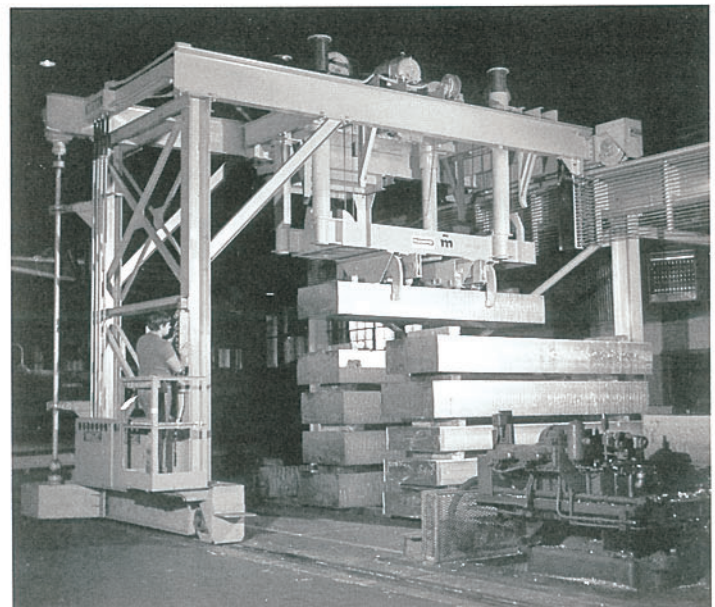
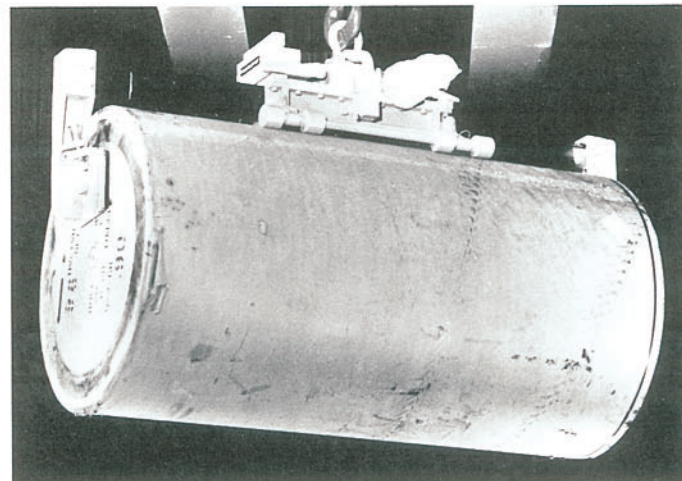
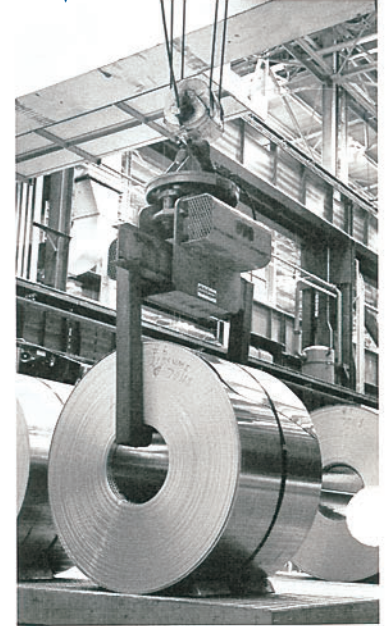
- A. A heavy duty *MANSAYER* grab featuring a motorized rollover and turntable, as well as telescoping leg design, for close stacking of rolls.
- B. This *MANSAYER* telescoping leg coil grab offers close stacking in narrow aisles with low headroom. Its turntable eliminates a floor man when controlled from the overhead crane.
- C. This *MANSAYER* horizontal grab operates from a fixed beam while end-gripping paper rolls. Motorized, it handles rolls weighing up to 15,000 pounds.
- D. The *MANSAYER* aluminum ingot grab is suspended from a *WRIGHT*® gantry crane. It's used for transferring ingots in and out of storage, or feeding them to a scalper.



A.▼



B.▼



D.▲

▲C.



A. *MANSAYER* "C" frame lifters are available in a variety of capacities to meet most coil handling needs. This lifter is suspended from a WRIGHT overhead crane and hoist.

B. *MANSAYER* parallelogram horizontal coil grabs with capacities up to 50 tons handle a wide range of coil widths. Their unique design permits secure load handling where aisle and floor space is critical.

C. This *MANSAYER* telescoping leg bun grab gently squeezes polyurethane buns along their sides while lifting them. A rack and pinion drive applies enough pressure to grip and hold the bun without deformation or damage.

D. A unique *LOUDEN*® and *MANSAYER* grab combination places pallets of six refrigerators in storage. The operator is guided to the proper storage location by encoders on the crane and hoist carrier.

◀ A.



◀ B.



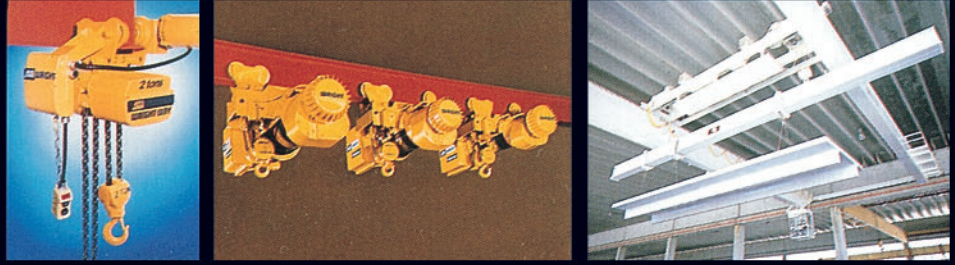
C. ▶



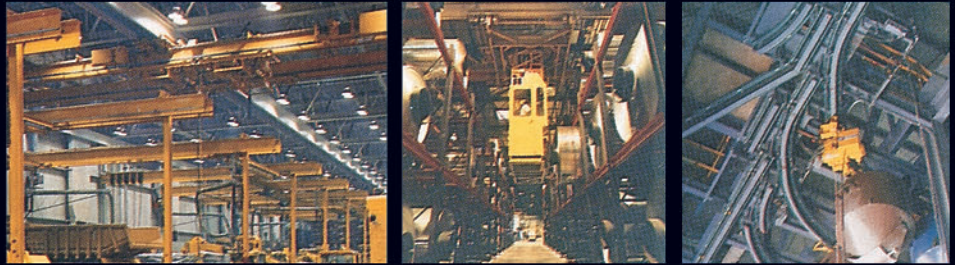
◀ D.

The productivity goals of today's industrial community can be achieved with the proper choice of material handling equipment. Whether your requirements are simple or complex, we can provide a solution. Call us today for an objective analysis of your needs.

WRIGHT



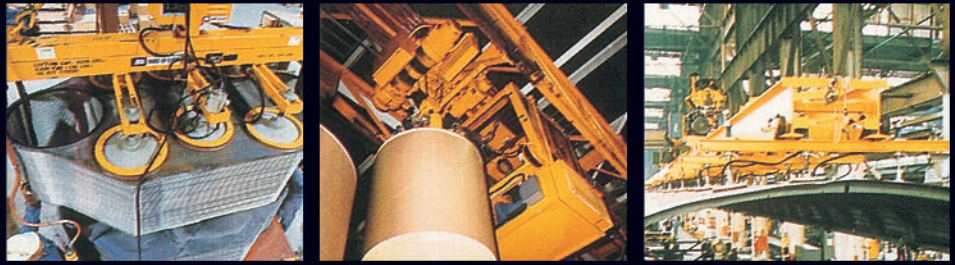
LOUDEN



mansaver



VAC-U-LIFT



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