

# LIFTING TONGS

## SPECIAL PURPOSE TONGS



Ingot laydown tong picks up from vertical, lays down to horizontal



Gripping tong lifts solar heliostats for placement on pylons



Paper clamp loads a machine that makes paper towels and tissue



Double mill roll tong picks up a two-roll set. Has adjustment for varying diameters



Gripping tong lifts irregularly shaped loads



Pressure tong lifts machined pieces from the I.D.



Tong lifts vertical billets from soaking pits

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Bushman designs and manufactures a complete line of tongs for lifting and moving a wide range of industrial loads. We design each tong for the size, shape, weight and special conditions in your particular application.

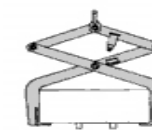
Bushman tongs are designed and manufactured according to the latest revisions of ASME Specifications B30.20 and BTH-1, Design of Below-the-Hook Lifting Devices. Each tong is equipped with our automatic latching device that provides safe and reliable operation of the gripping mechanism.



## TONG CONFIGURATIONS

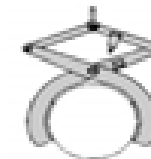
### Supporting Tong

For single-size objects that have support clearance underneath, such as boxes, crates, bins and containers. The lifting feet of the tong support the load and maintain it on a horizontal lifting plane.



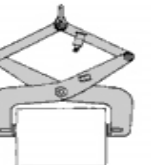
### Gripping Tong

For materials such as ingots, rolls, tubes, pipes and other round or cylindrical objects. The tong arms extend beyond and below the center of the load to provide additional support. The diameter of the load may vary by approximately 25%, but the variation in length is generally unlimited.



### Pressure Tong

For gripping the vertical sides of slabs, bales, boxes, billets and other flat or round objects. The pads on pressure tongs provide surface friction or penetration of the load to maintain a safe hold during handling. Pads can come with rubber, belting, pins, points, serrated bits and other materials.



## AUTOMATIC LATCH

Each tong is equipped with the Bushman automatic latching device that provides safe and reliable operation of the tong mechanism. To operate the latch:

With the pads open, position the tong over the load to be picked up. Unit will be in open position.



Lower the tong onto the load. With the tong resting on the load, and hoist tension released, the latch automatically disengages from the locked open position.



Raise the hoist to allow the tong pads to close onto load. Lift and move the load to the desired location. To release the load, lower the tong and place the load on the ground to relieve tension. The latch will automatically lock the tong in the open position. Then raise the hoist to remove the tong.





## LIFTING TONGS



Model 1003 tong has a locking pin and an operator handle.



Model 1503 tong lifts from underneath a concrete container

Specially designed 3-legged lifting tong attaches to the flange plate of a hydraulic excavator frame

## GRIPPING TONGS



Model 1029 single arm tong grips commercial truck components in a work cell.



Model 1029 single arm tong (below) lifts machined shafts in a machine shop.



Model 1529 double arm gripping tong lifts long fabricated cylinders.

## PRESSURE TONGS



Model 1570 tong has pivoting rubber pads to hold paper rolls of varying widths.



Model 1070 tong has pivoting pads with diamond knurled teeth to lift gears.



Model 1070 tong lifts red-hot steel billets before forging

## GRIPPING PADS & POINTS



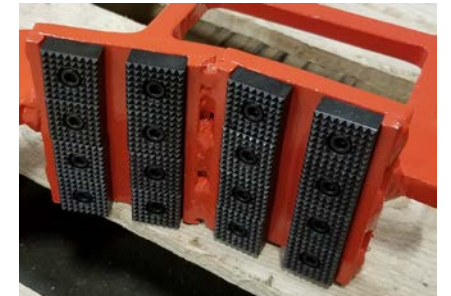
Hardened tool steel points 58-60 Rc for raw slabs and billets



Flat rubber pads for paper & boxes



V-shaped pads for round vertical loads



Diamond-knurled tool steel bits can be spread out or packed together



This grating can be easily formed to a curved pad to lift soft materials



Weld beads on formed steel plates work well for lifting graphite electrodes



Machined hardened teeth, either flat or on a radius are effective for lifting finished steel or aluminum where witness marks are less desirable.

