

FMC Technologies Measurement Solutions, Inc. **Sphere Removal Tool** is used to attach to a spheroid using the simple principal of a vacuum. After attachment, the sphere removal tool can be used to lift and remove a spheroid from any accessible location. The sphere removal tool incorporates a hand-operated vacuum pump attached to a pipe extension with a lifting hook on one end and a suction cup located on the opposite side.

A hand-operated vacuum pump is furnished with a manually operated valve and a vacuum pressure gauge to indicate the vacuum being held on a spheroid. The basic components of a sphere removal tool are the same for all sizes of spheroids. Pipe extensions are available in one foot increments up to eight feet, depending on the overall length of the tool required. Suction cups are available to handle spheres with diameters from 6 to 42 inches.

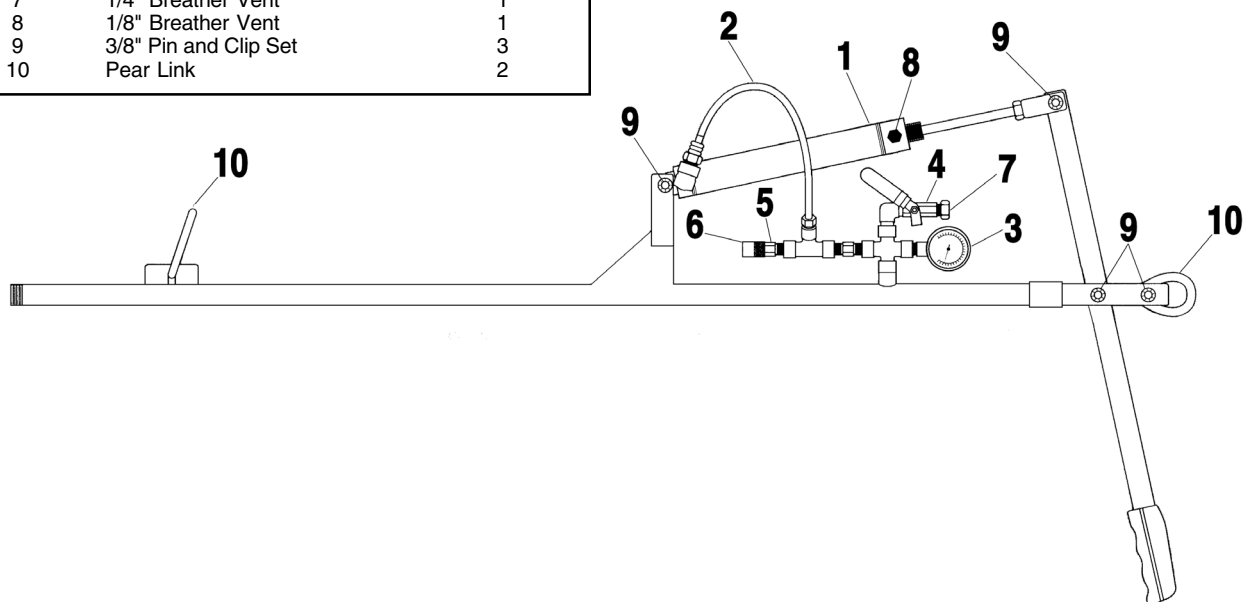
FMC Technologies Measurement Solutions Sphere Removal Tools and hardware are manufactured to give the highest quality products available. The vacuum pump will develop 23 inches of mercury vacuum. All pipe fittings, check valves, pump cylinders and pipe sections are made from stainless steel to prevent rust and corrosion. The vacuum gauge is made of galvanized and painted steel.



**Sphere Removal Tool**

### Parts List

Item	Description	Qty.
1	Cylinder and Clevis Assembly	1
2	Flex Hose - (Length 12")	1
3	0-30 Vacuum Gauge	1
4	1/4" Valve	1
5	1/4" Check Valve	1
6	Deflector Cap	1
7	1/4" Breather Vent	1
8	1/8" Breather Vent	1
9	3/8" Pin and Clip Set	3
10	Pear Link	2



## Operating Instructions

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### Parts Required

VP-SRT-750	Sphere Removal Tool
VP-SRX-20	Sphere Removal Tool Extension Specify length (up to 8 feet available)
Sphere Cup	Specify sphere diameter
Safety Sling	Specify sphere diameter
Sphere	Specify elastomer and durometer

### Step 1:

Place the sphere inside the sling with clevis links on top of sphere. Attach links to two "J" shaped sling hooks on removal tool.

### Step 2:

With removal tool assembly in a vertical position, press removal tool and suction cup assembly firmly against sphere. Check to make sure needle valve (item 4) is in the closed position. Operate the pump handle, while watching the vacuum gauge, until sufficient vacuum is created to hold the sphere. Watch the gauge to assure vacuum seal is tight with no leakage. Attach overhead lifting device to either the top pear-shaped clevis link or the link located below the pump assembly. The sphere is now ready to lift.

### Step 3:

Once the sphere is in the desired location, remove the sling and then open needle valve (item 4) to release vacuum. Remove removal tool from sphere.

### Caution:

**Never move a spheroid without a safety sling. The ability of this sphere removal tool to hold an adequate vacuum on a sphere and operate safely is dependent on the condition of the spheroid. Do not attempt to use this tool on a spheroid that has been cut or gouged.**

The specifications contained herein are subject to change without notice and any user of said specifications should verify from the manufacturer that the specifications are currently in effect. Otherwise, the manufacturer assumes no responsibility for the use of specifications which may have been changed and are no longer in effect.

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