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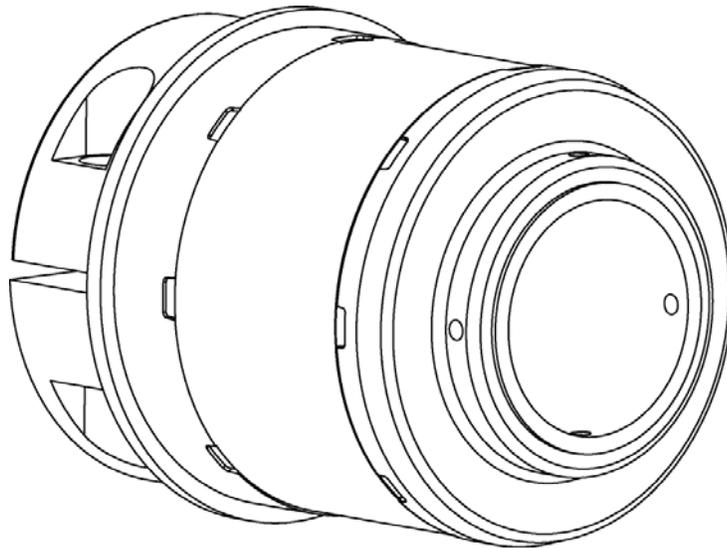


TIDLAND

## Tidland Air Chuck

Installation, Operation and Maintenance

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## CAUTION

- Wear eye protection when using tools or compressed air.
- Use caution when inflating chuck tires.  
**Do not exceed 25 psi when inflating chucks outside of the core.**  
Tires can rupture and can cause bodily harm, including damage to eyes and ears.



## TIDLAND CUSTOMER SERVICE

800.426.1000  
360.834.2345

[www.maxcessintl.com](http://www.maxcessintl.com)

Please have your sales order number ready when calling. It is normally stamped on the chuck body.

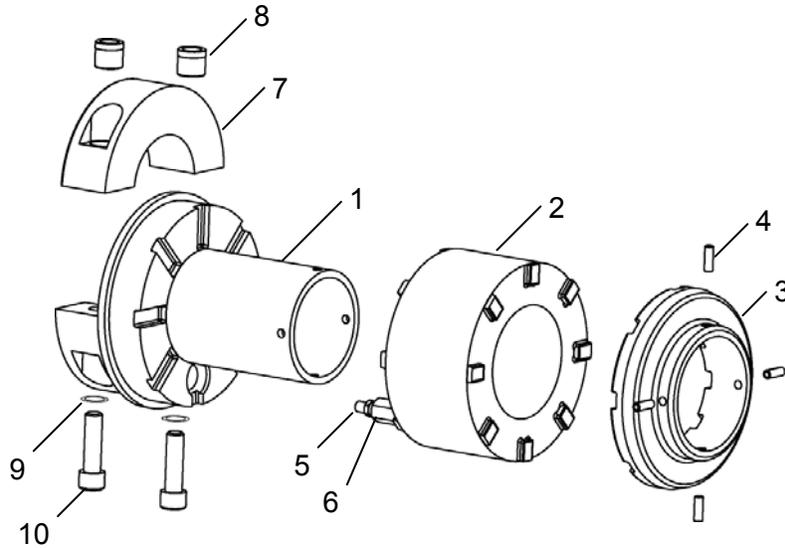
Visit the Tidland Repair and Return Center online to review our return policies  
or to submit an electronic Return Material Authorization Request.  
[www.maxcessintl.com/returns](http://www.maxcessintl.com/returns)

## RECOMMENDED TOOLS

- Clean non-lubricated air supply: 80-120 psi (5.5-8.3 bar) for proper operation.
- Tidland Inflation Tool (Part No. 128053)
- Tidland Air Release Tool (Part No. 111630)
- Hex drive wrenches

For more accessories to help with your winding processes, visit [www.maxcessintl.com](http://www.maxcessintl.com).

# ASSEMBLY DIAGRAM AND PARTS LIST



### TYPICAL AIR CHUCK SHOWN

Part numbers are dependent upon chuck size. Please have your sales order number available when calling for spare parts. It is normally stamped on the chuck body.

ITEM	DESCRIPTION
1	CHUCK BODY
2	TIRE ELEMENT, RUBBER or POLY
3	FACEPLATE
4	ROLL PIN 1/4" DIA x 3/4" LG
5	VALVE, SCHRADER or QUICK RELEASE
6	VALVE EXTENSION
7	CLAMP
8	KNURLED NUT
9	SHIM WASHER
10	SOC HD CAPSCREW

Additional accessories are on page 7.



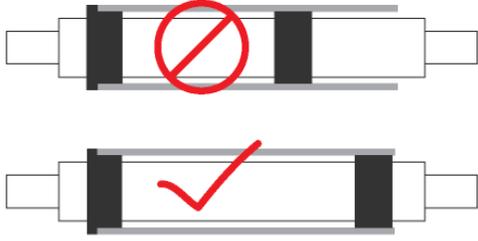
Quick Release 126440    Schrader 126348    Quick Disconnect 512169

These parts have 1/8 NPT male threads.

When replacing valves, apply thread sealant (according to manufacturers instructions) to threads of new valve (unless the sealant is pre-applied) and reinstall.

**NOTE:** Valves with pre-applied thread sealant are good for multiple uses. Always inspect the valve threads for sufficient sealant; do not reuse more than six times.

# INSTALLATION



- When using chucks on a shaft, always locate chucks as shown.
- Improper placement of chucks will reduce life cycle of the shaft.
- Questions about installation, application or load calculations? Call Tidland Customer Service.

## Install Chuck

**Shaftless Mount:** Bolt chuck onto flange or mount on spindle as required for your machine.

**Through-Shaft Mount:** Slide chuck with clamp over shaft. See diagram above for proper placement.

If using a clamp, tighten clamp bolts **alternately**, maintaining even clearance on both sides. Fully tightening one side before the other can lead to clamp fracture. See Table 1 for torque specification.

If your chuck is equipped with a setscrew mount instead of clamps, see Table 2.

**Table 1. Clamp Bolt Torque Specs**

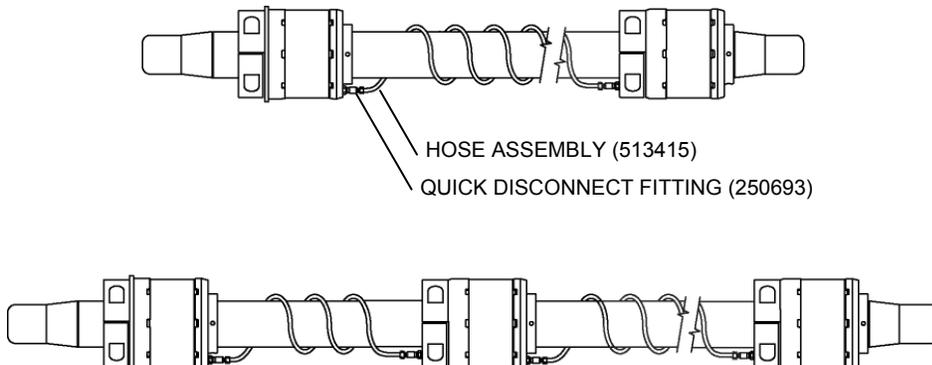
Chuck Size	Bolt Size	Torque Spec	
4.00	.375-16NC	9.0 ft·lbs	12.2 Nm
5.00	.437-14NC	11.0 ft·lbs	14.9 Nm
6.00-12.00	.500-13NC	37.0 ft·lbs	50.2 Nm

**Table 2. Setscrew Torque Specs**

Setscrew Size	Torque Spec*	
3/8-16NC	23.0 ft·lbs	31.0 Nm
1/2-13NC	51.0 ft·lbs	69.0 Nm
M10 x 1.50	26.0 ft·lbs	35.0 Nm
M12 x 1.75	42.0 ft·lbs	57.0 Nm

\*For use with steel mandrels.

## Optional Air Hose Configurations



## OPERATION



Use caution when inflating chuck tires.

**Do not exceed 25 psi when inflating chucks outside of the core.**

Tires can rupture and can cause bodily harm, including damage to eyes and ears.

1. Use Tidland Inflation Tool to inflate chuck.
2. Operate chucks at 80-100 psi (5.5-6.9 bar) air pressure.
3. Begin rotation.
4. When roll run is complete, stop shaft rotation.
5. Deflate chuck completely using Tidland Air Release Tool.
6. Remove core. **For shaftless mount:** Open roll stand and remove core from chucks.

### NOTICE

**Shaftless Mount:** Excessive axial side force after chuck is fully inserted can damage cores and place unnecessary stress on the roll stand.

## MAINTENANCE

### Preventive Maintenance

Throughout the operating shift, use compressed air to keep the chuck free from dust and debris.

### Removing the Chuck Tire Element

1. Match mark the faceplate and the body for alignment during reassembly.
2. Using a punch, drive out the four roll pins located in the faceplate.
3. Pull off the faceplate.
4. Remove the element from the assembly.
5. Clean debris from inside chuck body.

### Reinstalling a Chuck Tire Element

1. Place the element on the assembly. Align the valve with the hole in the body.
2. Replace the faceplate, aligning with match marks on body.
3. Position the four roll pins in the correct locations.
4. Using a mallet, drive the four roll pins into the assembly until secure.

### NOTICE

Do not attempt to remove or replace the air valve without first removing the element from the chuck body. Damage caused by doing so will void the warranty.

## TROUBLESHOOTING

Problem	Possible Cause	Recommended Solution
Rubber element wearing on edges	This is a normal wear pattern, but is accelerated by use of oversize cores, and/or running chucks underinflated.	Use correct core size or call Tidland for more information about longer chucks.  Ensure chucks are inflated, in cores, to 80-100 psi.
Clamp cracking or breaking	Chuck bore does not match shaft OD.  One clamp bolt was tightened down before the other.	Chuck should fit shaft within .008"-.015" clearance range.  Tighten bolts alternately when installing. Refer to Table 1 on page 5 for torque specs.
Leaks	Leaking valve or damaged tire	Inflate tire, without core, to <b>25 psi maximum</b> and spray with soapy water to determine location of leak.  Replace tire or valve as needed.  <div style="display: flex; align-items: center; justify-content: center;"> <p><b>Tires can rupture when inflated outside the core. Do not exceed the maximum recommended air pressure when testing for leaks.</b></p> </div>

## INFLATION ACCESSORIES

DESCRIPTION	PART NO.
Tidland Air Release Tool	111630
Tidland Inflation Tools	
Quick Release w/ gauge	128052
Quick Release w/o gauge	128054
Schrader w/ gauge	128053
Schrader w/o gauge	128055
Recoiling Air Hose (12 ft)	
1/4 NPT Brass Fittings	128155
Air Hose (10 ft)	
1/4 NPT Nylon Fittings	600610

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