



Continuous Spiral I.D. Cladding

i Head

The Liburdi Dimetrics i Head was specifically designed for GTAW applications requiring continuous spiral ID cladding, and ID groove welds. It is perfect for small diameter pipes, nozzles, and vessel wall penetrations.

The i Head can be mounted in any position via a consumable mounting ring, or by a bolt hole pattern on the front of the frame. It includes a single lifting point, and a removable cable bundle for easy positioning. Key features include 24" of axial travel, continuous rotation synchronized with axial travel, AVC, wire feed, and HF arc starting.

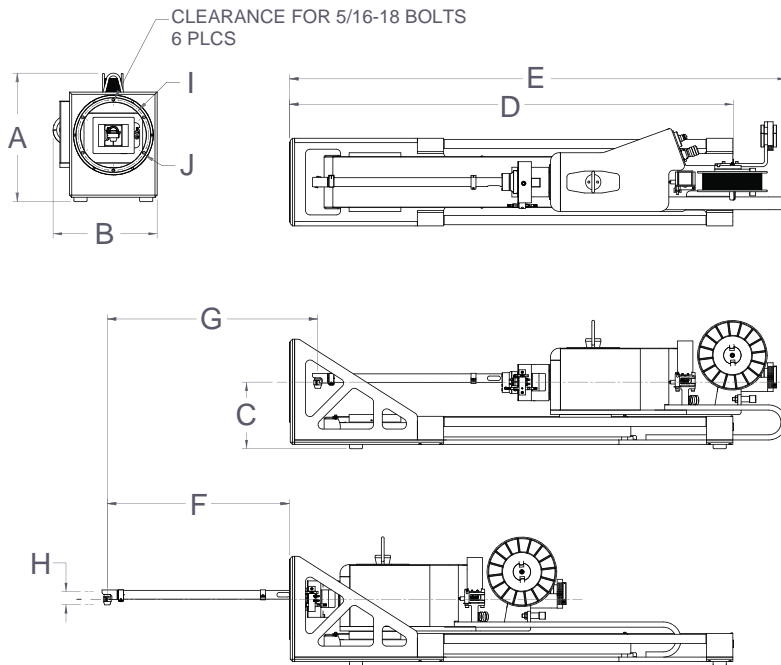
The ballscrew driven plunge axis (axial travel) provides smooth precise motion and its drive can be disengaged with the push of a button for fast manual adjustments. Both the plunge and rotation axis use encoder feedback ensuring accurate synchronization and position control. The GoldTrack®VI is the preferred power supply to be used with this weld head. Liburdi Gryphon™ software includes the ability to loop multiple weld segments, allowing for precise control of the weld puddle in the 5G orientation.

A range of 3 standard torches support post weld ID of .70" to pre-weld ID of 8.75". All of the torches are water cooled and for most applications use off the shelf consumables. Torches can also be equipped with a camera for remote viewing.



Weld Quality Starts in the Arc

USA | tel: 1-704-230-2510 | dimmktg@dimetrics.com
INTERNATIONAL | tel: 1-905-689-0734 | liburdi@liburdi.com
EUROPE | tel: +31-6-2036-1018 | liburdieurope@liburdi.com
www.liburdi.com



DIMENSION	DESCRIPTION	VALUE
A	Height	14.6" (371 mm)
B	Width	11.9" (302 mm)
C	Centre of Rotation	7.6" (193 mm)
D	Frame Length	50.7" (1288 mm)
E	Fully Retracted L	56.7" (1440 mm)
F	Fully Extended L	*Torch Specific. Approx 23"
G	Torch Stroke	24" (610 mm)
H	AVC	1.50" (38 mm)
I	Mounting Bolt Hole Circle	8.06" (204 mm)
J	Mounting Adapter Diameter	8.5" (217 mm)
K	Min Mounting Adapter Thickness	0.25" (6 mm)

Weight: 115 lbs (52 kg), without torch or cable bundle)

* Available Torch Sizes:

TORCH SIZES	DIAMETER RANGER
0.70"	0.70" - 2.75" (18 - 70 mm)
2.25"	2.25" - 6.0" (57 - 152 mm)
3.5"	3.5" - 8.75" (89 - 222 mm)

Standard Features:

- Continuous spiral welding capability
- Capable of welding in any position
- Removable cable bundle for easy positioning
- Servo control AVC
- Servo control wire feed
- Manual position adjustment with push button clutch
- Plunge and rotation axis use encoder feedback for precise synchronization
- Water cooled torches with off the shelf consumables
- High frequency arc starting, touch starting, and touch-gap setting
- Single point lifting lug as well as side rails for manual positioning

Specifications:

Torches available for post-weld ID's of 0.700" to pre-weld ID's of 8.75"
 Current Rating: 200 amps @ 100% duty
 Tungsten Size: torch dependant

Max Wire Feed Rate: 100 IPM (254 cm/min)
 Filler Wire Size: 0.030" or 0.035"
 (0.8 mm to 0.9 mm) recommended
 Spool Size: 8" standard, up to 10 lbs

Plunge Axis speed: 0.005 IPM to 0.500 IPM
 (0.13 mm/min to 1.27 cm/min)

Plunge Axis stroke: 24" (610 mm) standard

Rotation Axis Speed: 0.01 to 1.25 RPM

AVC Axis Stroke: 1.5" (38 mm)



Liburdi Dimetrics GoldTrack® VI is a suitable power supply for the 'i' Weld Head System



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