INTELLIREAM® DD-IOL
DIRECT DRIVE ROBOTIC TORCH MAINTENANCE CENTER

Extend the life of your robotic MIG torch and improve cycle time in your robotic welding cell with the Nasarc Intelliream® DD-IOL (IO-Link™) model. Designed to improve overall welding equipment effectiveness, this robotic torch maintenance center systematically removes and limits spatter accumulation for enhanced productivity.

The Intelliream® DD-IOL model provides additional functionality including enhanced command and diagnostic signals. The complete process is managed by the internal CPU.

PRODUCT ADVANTAGES

Automated Nozzle Reamer:
• Independent reaming cycle uses a high-strength coated reaming bit designed to effectively remove and discard spatter from the nozzle. A two stage de-ringer removes the spatter ring at the bottom of the nozzle before reaming. The automatic retry feature ensures the nozzle is reamed to full depth.

Automated Wire Cutter:
• The innovative pinch-off wire cutter design creates a “V” shape for optimal arc starts. It is powerful and precise enough to handle all wire sizes up to 1/16” mild steel.

Automated Anti-Spatter Sprayer:
• Vortex action sprayer delivers a radial spray pattern to uniformly coat the interior surface of the nozzle and help prevent spatter buildup. The anti-spatter fluid reservoir may be mounted remotely.

Nozzle Gas Flow Sensor:
• Designed to detect and measure adequate gas flow at the point of use.

Nozzle Presence Sensor:
• Post-cleaning, presence sensor ensures the nozzle is secured and ready for the next weld.

Intuitive User Interface:
• Designed to allow for easy setup, diagnostics and reporting at point of use.

TECHNICAL DATA

Footprint Size: 19” H x 12” L x 10” W
Cutter Speed: 320 RPM
Air Driven Motor: 0.5 HP
Wire Cutter Diameter: 0.030” - 0.0625”
Air Supply: 80 PSI, 17 SCFM
Power Supply: 24 VDC, 0.5 A
**PROCESS HIGHLIGHTS**

01 Nozzle gas flow sensor detects gas flow at the point of use.
02 TCP check pin verifies positional accuracy of the tool center point.
03 Vortex action sprayer delivers a radial spray pattern to uniformly coat the interior surface of the nozzle.
04 Pinch-off wire cutter is integrated in the clamp housing for easy and quick access, minimizing cobot movement.
05 Nozzle detect ensures that the nozzle is fastened on the torch.
06 Automated reaming cycle uses a high-strength coated reaming bit.

**PERFORMANCE**

The networked Intelliream® DD-IOL provides additional performance over traditional reamers.

- Ease of installation and seamless integration with controller.
- I/O Link™ is available as a port class A device.
- Troubleshooting via diagnostics at the robot or PLC.
- Expandable platform for feature upgrades.
- Single connection for multiple robots.
- Data acquisition of process counters.

**INDUSTRY 4.0 FEATURES & BENEFITS**

The INTELLIREAM® DD-IOL torch maintenance center incorporates the following advantages enabled by network connectivity:

- Cycle counter and preventive maintenance countdown will boost uptime and improve overall equipment effectiveness.
- Add-on instruction (AOI) is available for Logix PLCs to cut integration time and costs.
- Magnetic sensors are utilized for optimum position accuracy and reliability.
- Dry-run and sensor override modes make setting up and trouble-shooting easier.
- Self-centering grip design for positive traction on all nozzle sizes.
- On-board diagnostics indicate position and fault codes for ease of troubleshooting.
- A status light signals when the unit is operating and flashes diagnostic codes if a fault occurs.
- Advanced diagnostic and troubleshooting tools help pinpoint issues and decrease downtime.

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**IO-Link™ Interface Wiring**

1. +24 VDC (BRN)
2. Input 1 (WHT)
3. 0 VDC (BLU)
4. C/Q IO-Link™ (BLK)
FLEXIBLE MOUNTING OPTIONS

There are 2 flexible mounting options:
1) Mounting Box - A mounting box can be used to mount on any fixture or table.
2) Floor Mount Stand (various heights available)

ORDERING INFORMATION

STANDARD EQUIPMENT
INTELLREAM® DD-IOL
Spray System
TCP Check Pin
Status Light
De-ringer
Fluid Reservoir

FACTORY INSTALLED OPTIONS
Mounting Box
IRX120099-00
Mounting Box Tray
IRX120099-01
Mounting Box Adapter (IRM02/IRM03)
IRX120099-03
Wire Cutter
IRW010099-00
Nozzle Detect Assembly
IRE120099-02
Nozzle Gas Flow Sensor
NAC40

ACCESSORIES
Reaming Bit, 1/2"
IRB010500-00
Reaming Bit, 1/2" Bottleneck
IRB010501-00
Reaming Bit, 15.5mm
IRB01M155-00
Reaming Bit, 5/8"
IRB020625-00
Reaming Bit, 3/4"
IRB010750-00
IO-Link Cable, 4 pin, 10m
IRE060017-00
Floor Mount Stand, 30" DD
IRX120099-30
Anti Spatter Bulk Feed DD
IRS120099-06