COMPACT WIRE DRIVE SYSTEM FOR AUTOMATION

Power Feed® 10R

KEY FEATURES

The Power Feed® 10R is a high performance, digitally controlled wire drive for modular, multi-process welding systems. It is specifically designed to mount to a robot arm or to use in hard automation applications. Close integration of the wire drive, power source and existing equipment creates the foundation for a system with superior welding performance and reliability.

Processes
[Power source controlled] »
- MIG, Pulsed, STT®, Flux-Cored

Applications »
- Robotic Fabrication, Hard Automation, Flexible Automation

Output »

Input »

Product Number »
K1780-3  Power Feed® 10R

Shown: Power Feed® 10R mounted on a FANUC® Robot Arm.
**FEATURES**

- **Integrated Design** – Designed to “nest” in the upper arm of the FANUC® Robotics ARC Mate® iC family of arms
- **Digital Control** – Yields industry leading performance
- **Fast Braking** – Goes from maximum speed to zero in milliseconds, minimizing the chance of wire sticking in the puddle
- **Two Speed Settings** – Select low or high speed gears for a wide wire feed speed range
- **Split Wire Guides** – Trouble-free feeding and fast, tool-less wire installation, changeover and maintenance
- **Tachometer Feedback** – Provides calibration and precise control of wire feed speed
- **Brass-to-Brass Connections** – Enhanced electrical connectivity between torch and feeder results in improved arc performance
- **Drive Roll Tension Gauge** – Easy-to-read for accurate tension setting
- **Self-loading Wire Capability** – Easy set-up
- **Modular Construction** – Simplifies drive maintenance

**A CLOSER LOOK**

- The Power Feed® 10R consists of an industrial motor driving the feeder mechanism in a sheet metal frame. The logic for controlling the wire feeder resides in a PC board inside the robotic power source.
- Lower section contains gas solenoid and differential tachometer amplifier allowing accurate motor speed control up to 100 ft. (30.5 m) from the power source.
- Easy-to-read gauge allows the operator to accurately set tension on the wire.
- Brass-to-brass electrode pairing connections for good connectivity between welding torch and torch bushing.
- High speed gear for most fine wire applications. Low speed gear for applications requiring higher torque such as welding with Innershield® self-shielded flux-cored electrode.
- Braking system minimizes wire sticking in the puddle for smooth finishes.
- Split wire guide provides easy wire loading and accessibility for maintenance.
- The feeder is self-threading for easy wire loading enabling operator to feed wire without the need to remove drive rolls.
- Variety of drive roll sizes and types for any application.
- Tool-less access to routine maintenance points.

**KEY CONTROLS**

1. Drive Roll Tension Gauge
2. Drive Roll Tension Adjustment Knob
3. 14-Pin Receptacle for Control Cable
4. CGA Gas Connection
5. Wire Inlet Guide
6. Optional Water Kit (Not Shown)
7. Drive Roll Cover
8. Gun Bushing (Not Shown)
OPTIONS

FEED PLATE GUN RECEIVER BUSHINGS

<table>
<thead>
<tr>
<th>K1500-1 Gun Receiver Bushing (Standard)</th>
<th>K1500-2 Gun Receiver Bushing (Optional)</th>
<th>K1500-3 Gun Receiver Bushing (Optional)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Magnum® PRO 250, 350 and 450 or Magnum® 200, 300 and 400 Gun and Cable Assemblies with K466-1 Connector Kit.</td>
<td>Magnum® PRO 350 Gun Pkg. with 035-045 Liner and K466-10 Connector Kit [K2652-2-10-45]</td>
<td>Magnum® PRO 550 or Magnum® PRO 550 Gun and Cable Assembly with K613-1 Connector Kit.</td>
</tr>
<tr>
<td>Magnum® PRO 550 or Magnum® 550 Gun and Cable Assembly with K613-1 Connector Kit.</td>
<td>Magnum® 200 and 400 Fully Assembled Guns (K497-2X And K471-2X).</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Magnum® PRO 250, 350 And 450 or Magnum® 200, 300 and 400 Gun and Cable Assemblies with K466-10 Connector Kit.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Guns with Tweco® #2, #3, and #4 Connectors.</td>
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</tbody>
</table>

14-PIN TO 14-PIN CONTROL CABLES

<table>
<thead>
<tr>
<th>Description</th>
<th>Product Number</th>
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</thead>
<tbody>
<tr>
<td>18 in. (0.45 m)</td>
<td>K1785-2</td>
</tr>
<tr>
<td>2 ft. (0.61 m)</td>
<td>K1785-3</td>
</tr>
<tr>
<td>4 ft. (1.2 m)</td>
<td>K1785-4</td>
</tr>
<tr>
<td>12 ft. (3.6 m)</td>
<td>K1785-12</td>
</tr>
<tr>
<td>16 ft. (4.8 m)</td>
<td>K1785-16</td>
</tr>
<tr>
<td>25 ft. (7.6 m)</td>
<td>K1785-25</td>
</tr>
<tr>
<td>40 ft. (12.2 m)</td>
<td>K1785-40</td>
</tr>
<tr>
<td>50 ft. (15.2 m)</td>
<td>K1785-50</td>
</tr>
<tr>
<td>100 ft. (30.4)</td>
<td>K1785-100</td>
</tr>
</tbody>
</table>

CABLE ADAPTERS

<table>
<thead>
<tr>
<th>Cable Adapter</th>
<th>Cable Length ft. (m)</th>
<th>Product Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>22-pin to 14-pin</td>
<td>10 (3)</td>
<td>K1804-1(3)</td>
</tr>
<tr>
<td></td>
<td>18 (0.45)</td>
<td>K1804-2(3)</td>
</tr>
<tr>
<td></td>
<td>18 (0.45)</td>
<td>K2681-1(3)</td>
</tr>
<tr>
<td>14-pin to 22-pin</td>
<td>18 (0.45)</td>
<td>K1805-1</td>
</tr>
</tbody>
</table>

*Only for K1795 to Power Feed® 10R connection.
*Only for Power Wave® 655 (22-pin) to K1785.

HARD AUTOMATION

ROBOTIC

Power Feed® 10R K1780-3
Power Wave® 455M, 455M/STT Robotic K2262-3 OR
Power Wave® 455M/STT Robotic K2263-1

Power Feed® 10R K1780-3
Power Wave® 455M, 455M/STT Robotic K2262-3 OR
Power Wave® 455M/STT Robotic K2263-1
## RECOMMENDED ACCESSORIES TO EXPAND MACHINE CAPABILITIES

**Product Name**  | **Product Number** | **Input Power** | **Wire Feed Speed Range** | **Wire Size Range (in [mm])** | **H x W x D** (inches [mm]) | **Net Weight lbs. (kg)** |
<table>
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<tr>
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</thead>
<tbody>
<tr>
<td>Solid Steel Wire, Smooth V Groove</td>
<td>K1780-3</td>
<td>40V DC</td>
<td>50-800 (1.3-20.3)</td>
<td>.023-.030 (0.6-0.8)</td>
<td>8.4 x 7.5 x 9.1 (213 x 191 x 231)</td>
<td>13.2 (6.0)</td>
</tr>
<tr>
<td>Cored Steel Wire, Knurled V Groove</td>
<td>K1780-7</td>
<td>40V DC</td>
<td>50-800 (1.3-20.3)</td>
<td>.030-.035 (0.8-0.9)</td>
<td>8.4 x 7.5 x 9.1 (213 x 191 x 231)</td>
<td>13.2 (6.0)</td>
</tr>
</tbody>
</table>


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