



IRIZAR HEAVY INDUSTRIES INC

1512 Adamson View, Edmonton, Alberta, T6W 0V4, Canada

P: 1 780 450 6695, F: 1 780 485 6677

E mail: jirizar@jirizar.com, Website: www.jirizar.com



PIPE ROTATORS & PIPE POSITIONERS OPERATION MANUAL

PR & PP SERIES



Revision	January 6	15	2012
----------	-----------	----	------

Note: The information contained in this manual is intended to be accurate. However the manufacturer retain the rights to make changes in design which may not be include herein



IRIZAR HEAVY INDUSTRIES INC

1512 Adamson View, Edmonton, Alberta, T6W 0V4, Canada

P: 1 780 450 6695, F: 1 780 485 6677

E mail: jirizar@jirizar.com, Website: www.jirizar.com



PROJECT LIST

1. SAFETY REQUIREMENTS	2
2. SPECIFICATIONS	5
3. LUBRICATION AND MAINTENANCE	7
7. THE PARAMETER OF INVERTER AND ADJUSTMENT.....	8
8. TROUBLESHOOTING	9
9. WARNING	10
10. T VERTER RE-SET PROCEDURE	11
11. LIMITED WARRANTY	13



IRIZAR HEAVY INDUSTRIES INC

1512 Adamson View, Edmonton, Alberta, T6W 0V4, Canada
P: 1 780 450 6695, F: 1 780 485 6677
E mail: jirizar@jirizar.com, Website: www.jirizar.com



1. SAFETY REQUIREMENTS



WARNING ARC WELDING MAY BE DANGEROUS

PROTECT YOURSELF AND OTHERS FROM POSSIBLE SERIOUS INJURY OR DEATH, KEEP CHILDREN AWAY. PACEMAKER WEARERS SHOULD CONSULT WITH THEIR DOCTOR BEFORE OPERATING.

Read and understand the following safety highlights, *BE SURE THAT ALL INSTALLATION, OPERATION, MAINTENANCE AND REPAIR PROCEDURES ARE PERFORMED ONLY BY QUALIFIED INDIVIDUALS.*



1. *ELECTRIC SHOCK can kill*

- The electrode and work (or ground) circuits are electrically “hot” when the welder is on, do not touch these “hot” parts with your bare skin or wet clothing.
- Insulate yourself from work and ground using dry insulation. Make certain the insulation is large enough to cover your full area of physical contact with work and ground.
- In semiautomatic or automatic wire welding, the electrode, electrode reel, welding head, nozzle or semiautomatic welding gun are electrically “hot”.
- Always be sure the work cable makes a good electrical connection with the metal being welded, the connection should be as close possible to the area being welded.
- Ground the work or metal to be welded to a good electrical (earth) ground.
- Maintain the electrode holder, work clamp, welding cable and welding machine in good, safe operating condition. Replace damaged insulation.
- Never dip the electrode in water for cooling.
- Never simultaneously touch electrically “hot” parts of electrode holders connected to two welders because voltage between the two can be the total of the open circuit voltage of both welders.
- When working above floor level, use a safety belt to protect yourself from a fall should you get a shock.



2. *ARC RAYS can burn*

- Use a shield with the proper filter and cover plates to protect your eyes from sparks and the rays of the arc when welding or observing open arc welding. Head shield and filter lens should conform to nation standard.
- Use suitable clothing made from durable flame-resistant material to protect your skin and that of your helpers from the arc rays.



- Protect other nearby personnel with suitable, non-flame able screening and warn them not to watch the arc nor expose themselves to the arc rays or to hot spatter or metal.



3. *FUMES AND GASES can be dangerous*

- Welding may produce fumes and gases hazardous to health, Avoid breathing these fumes and gases. When welding, keep your head out of the fume. Use enough ventilation and exhaust at the arc to keep fumes and gases away from the breathing zone.
- Do not weld in locations near chlorinated hydrocarbon vapors coming from degreasing, cleaning or spraying operations. The heat and rays of the arc can react with solvent vapors to form phosgene, a highly toxic gas, and other irritating products.
- Shielding gases used for arc welding can displace air and cause injury or death. Always use enough ventilation, especially in confined areas, to insure breathing air is safe.
- Read understand the manufacturer's instructions for this equipment and the consumables to be used, including the material safety data sheet and follow your employer's safety practices.



4. *WELDING SPARKS can cause fire or explosion*

- Remove fire hazards from the welding area, if this is not possible; cover them to prevent the welding sparks from starting a fire. Remember that welding sparks and hot materials from welding can easily go through small cracks and openings to adjacent areas. Avoid welding near hydraulic lines.
- Where compressed gases are to be used at the job site, special precautions should be used to prevent hazardous situations.
- When not welding, make certain no part of the electrode circuit is touching the work or ground. Accidental contact can cause overheating and create a fire hazard.
- Do not heat, cut or weld tanks, drums or containers until the proper steps have been taken to insure that such procedures will not cause flammable or toxic vapors from substances inside.
- Vent hollow castings or containers before heating, cutting or welding. They may explode.
- Sparks and spatter are thrown from the welding arc. Wear oil free protective garments such as leather gloves, heavy shirt, cuff less trousers, high shoes and a cap over your hair. Wear ear plugs when welding out of position or in confined places. Always wear safety glasses with side shields when in a welding area.
- Connect the work cable to the work as close to the welding area as practical. Work cables connected to the building framework or other locations away from the welding area increase the possibility of the welding current passing through lifting chains, crane cables or other alternate circuits. This can create fire hazards or overheat lifting chains or cables until they fail



IRIZAR HEAVY INDUSTRIES INC

1512 Adamson View, Edmonton, Alberta, T6W 0V4, Canada

P: 1 780 450 6695, F: 1 780 485 6677

E mail: jirizar@jirizar.com, Website: www.jirizar.com



5. *FOR ELECTRICAL powered equipment (apply in to welding and cutting equipment)*

- Turn off input power using the disconnect switch at the fuse box before working on the equipment.
- Install equipment in accordance with IRIZAR HEAVY INDUSTRIES INC recommendations
- Ground the equipment in accordance with our recommendations



6. *OTHER*

- Keep all equipment safety guards, covers and devices in position and in good repair. Keep hands, hair, clothing and tools away from V-belt, gears, fans and all other moving parts when starting, operating or repairing or repairing equipment.
- In some cases it may be necessary to remove safety guards to perform required maintenance requiring their removal is complete. Always use the greatest care when working near moving parts.
- Do not put hands near the running fan, do not operate with panel open or guards off.



7. *ELECTRIC AND MAGNETIC FIELDS may be dangerous*

- Electric current flowing through any conductor causes localized Electric Magnetic Fields (EMF). Welding current creates EMF fields around welding cables and welding machines.
- EMF fields may interfere with some pacemakers, and welders having a pacemaker should consult their physician before welding.
- All welders should use the following procedures in order to minimize exposure to EMF fields from the welding circuit:
 - a. Rout the electrode and work cables together –Secure them with tape when possible.
 - b. Never coil the electrode lead around your body.
 - c. Do not place your body between the electrode and work cables. If the electrode cable is on your right side, the work cable should also be on your right side.
 - d. Connect the work cable to the workpiece as close as possible to the area being welded.
 - e. Do not work next to welding power source.



IRIZAR HEAVY INDUSTRIES INC

1512 Adamson View, Edmonton, Alberta, T6W 0V4, Canada
P: 1 780 450 6695, F: 1 780 485 6677
E mail: jirizar@jirizar.com, Website: www.jirizar.com



2. SPECIFICATIONS

PIPE ROTATORS have an assisting pressure column for pipe clamping. A positioner is used for pipe spool fabrication with height eccentric loads. [Video Clip](#)



Technical Information: a) Manual screw adjustment device to modify center to center wheel distance in both power and idler rolls, b) Column turning: $\pm 90^\circ$ (manual), c) Working height (floor to roll wheels): ~ 650 mm, d) Dimensions and weight subject to change without notice.

Standard package includes: a) One Power Roll with control box and 6.00 m long remote control for adjustment of rotating speed, stop, forward, and reverse. Digital speed indicator set for mm/min is included, b) One Idler Roll, c) Operation Manual, d) Electric Diagram and e) One year [Warranty](#)

Optional: Foot control pedal for controlling forward, stop and reverse

Model	Load & Rotation Capacity (tons)	Rotation Speed (mm/min)	Pipe Diameter (mm)	Column		Power (kW)	Weight (tons)
				Assisting Pressure (kg)	Lifting Speed mm/min		
PR-5	5	100 -1000	50 – 600	≤ 450	145	0.75	1.30
PR-5L	5	70 -1700	100 – 1200	≤ 450	145	0.75	1.50
PR-10	10	70 -1700	50 – 600	≤ 450	145	1.10	2.50
PR-10L	10	70 -1700	100 – 1200	≤ 450	145	1.10	2.70
PR -25	25	70 - 1700	100 - 1500	≤ 450	500	3.00	3.00



IRIZAR HEAVY INDUSTRIES INC

1512 Adamson View, Edmonton, Alberta, T6W 0V4, Canada

P: 1 780 450 6695, F: 1 780 485 6677

E mail: jirizar@jirizar.com, Website: www.jirizar.com



PIPE POSITIONER has a tilting angle of 45° and an assisting pressure column for pipe clamping. A positioner is used for pipe spool fabrication with height eccentric loads.



Technical Information: a) Manual adjustment for modifying center to center wheel distance, b) Dimensions and weight subject to change without notice.

Standard package includes: a) Power Roll with control box and 6.00 m long remote control for adjustment of rotating speed, stop, forward, and reverse. Digital speed indicator set for mm/min is included, b) Operation Manual, c) Electric Diagram and d) One year [Warranty](#)

Optional: a) Foot control pedal for controlling forward, stop and reverse, b) Idler support with adjustable height mounted over manual bogies.

Model	Load & Rotation Capacity (tons)	Rotation Speed (mm/min)	Tilt Angle	Pipe Diameter (mm)	Column		Power (kW)	Weight (tons)
					Assisting Pressure (kgs)	Lifting Speed mm/min		
PP -1	1	70 - 1700	± 45°	50 - 426	≤ 450	300	0.75	1.00
PP-2	2	70 - 1700	± 45°	50 - 630	≤ 450	300	1.10	1.40
PP-3	3	70 - 1700	± 45°	50 - 800	≤ 450	300	1.10	1.50



IRIZAR HEAVY INDUSTRIES INC

1512 Adamson View, Edmonton, Alberta, T6W 0V4, Canada

P: 1 780 450 6695, F: 1 780 485 6677

E mail: jirizar@jirizar.com, Website: www.jirizar.com



3. LUBRICATION AND MAINTENANCE

3.1 The reducer of this equipments all adopts the lubricant lubrication, the open type wheel gear and bearings adopt the grease lubrication.

3.2 Before using, reducer box need to add the oil to the mark centerline, while running should usually watch the oil height, add the lubricant of the same oil in time.

3.3 Lubricate and grease periodically. Replace initial change of oil at 300 hours and dispose properly of used oil. Replace every 6 months.

3.4 While already had no usage with long hours, while restarting should replace the lubricant and lubricate grease .

3.5 **GEAR BOXES** must be lubricated prior start the equipment. Use **MOBIL OIL DTE 24 or equivalent**. When first time use, change oil after one month, and then change oil every half year

3.6 **GEARS and SHAFTS** use lubrication grease **MOBIL GREASE DTE 25 or equivalent**. Check grease every month.



IRIZAR HEAVY INDUSTRIES INC

1512 Adamson View, Edmonton, Alberta, T6W 0V4, Canada

P: 1 780 450 6695, F: 1 780 485 6677

E mail: jirizar@jirizar.com, Website: www.jirizar.com



4. THE PARAMETER OF INVERTER AND ADJUSTMENT

4.1 The digital indicator shows the rotation speed, if the speed shown is out of accordance with actual speed, adjust the potentiometer on the electricity control panel in the box, make indicator value and actual values to agrees.

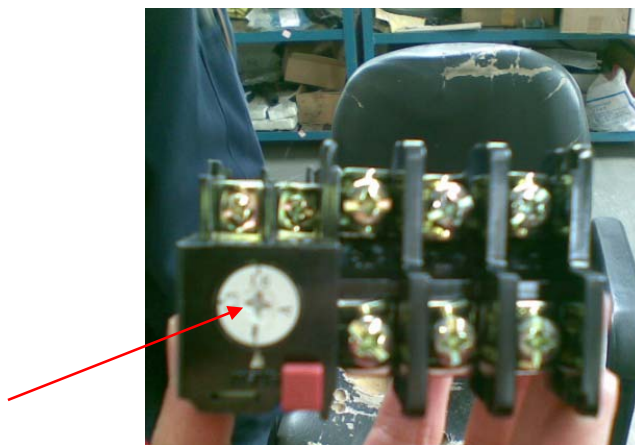
4.2 When over load or short circuit phenomenon occurs, inverter will alarm on automatically, and stop output.

4.3 Reset or change the parameter of inverter, detailed read to the machine manual. 8.4 The electricity principle diagram sees attach the page



5. TROUBLESHOOTING

Trouble	Causation	Method
Rotation act malfunction	<ol style="list-style-type: none"> input power wrong motor over load inverter run wrong motor malfunction contactor, relay malfunction 	<ol style="list-style-type: none"> adjust it examine gear box examine it examine it replacing
Speed and display differ	RP2 malfunction	Adjust or replacing
Inverter or transducer act malfunction	Read its manual	Read its manual
Rotation motor run but speed cannot change	<ol style="list-style-type: none"> potentiometer malfunction inverter malfunction 	<ol style="list-style-type: none"> examine it read its manual
Speed display is not accurately	<ol style="list-style-type: none"> No DC+5V input potentiometer normal indicator malfunction 	examine it replacing examine it
Inverter stops when running at low speed	1. not enough current going into the motors	1. adjust overheat protective relay to the max value (see picture below)



OVERHEAT PROTECTIVE RELAY



IRIZAR HEAVY INDUSTRIES INC

1512 Adamson View, Edmonton, Alberta, T6W 0V4, Canada

P: 1 780 450 6695, F: 1 780 485 6677

E mail: jirizar@jirizar.com, Website: www.jirizar.com



6. WARNING



"Overload or misuse of a **Pipe Rotator & Pipe Positioner** can cause **PROPERTY DAMAGE, BODY INJURE OR DEATH**. Before operating read carefully and understand the information below. If you have any questions or concerns, please contact us @ 1 877 IRIZAR1 or jirizar@jirizar.com

1. **LIMITED WARRANTY: "ANY REPAIR OR MODIFICATION MADE BY UNAUTHORIZED THIRD PARTIES WITHOUT WRITTEN CONSENT SHALL VOID THIS WARRANTY"**
2. Pipe Rotators & Pipe Positioners **MUST NOT** be loaded with a work piece (vessel/pipe) exceeding the diameter on its data plate. This can leads to an accident running away the vessel from the welding rotators.
3. Pipe Rotators & Pipe Positioners are factory shipped **WITHOUT LUBRICATION. ROTATORS MUST BE LUBRICATED PRIOR TO USE TO AVOID PERMANENT DAMAGE. GEAR BOXES MUST BE FILLED WITH MOBIL OIL DTE 24 OR EQUIVALENT. GEARS AND SHAFTS MUST BE LUBRICATED WITH MOBIL GREASE DTE 25 OR EQUIVALENT.**



IRIZAR HEAVY INDUSTRIES INC

1512 Adamson View, Edmonton, Alberta, T6W 0V4, Canada

P: 1 780 450 6695, F: 1 780 485 6677

E mail: jirizar@jirizar.com, Website: www.jirizar.com



7. T VERTER RE-SET PROCEDURE

If the T-Verter needs to be reprogramed, input the data corresponding to the T verter model of the machine is needed. Table below shows the set value and the function code for each model in order for the machine to work properly.

To set values on T-verter follow the next steps:

- Press "DSP FUN" until "000Fn" appears on display.
- Press arrows "up and down" to go to desire function code.
- After finding function, press "READ ENTER" to get into function code.
- Press arrows "up and down" to change value of function code.
- To change decimal place press " RESET".
- After input the value of the function code, press "READ ENTER" to save value.
- Press arrows "up and down" to go to next function code.

NOTE: Function Fn-123 will reset to factory settings. Use this if functions have been change randomly. After resetting to factory settings, input data of functions according to the chart below.

Refer to T-verter manual for more information about function description and applications.



IRIZAR HEAVY INDUSTRIES INC

1512 Adamson View, Edmonton, Alberta, T6W 0V4, Canada
P: 1 780 450 6695, F: 1 780 485 6677
E mail: jirizar@jirizar.com, Website: www.jirizar.com



Tables 10.1: T-verter function codes and set values

Type: N2-200/400

Function code	set value
Fn01	10
Fn02	10
Fn03	0
Fn05	1 or 10
Fn06	60
Fn07	3
Fn10	1
Fn11	2
Fn46	1
Fn47	111
Fn98	1011
Fn72	0
Fn76	0

Type: 7300CV--- SV300

Function code	set value
Fn 1-00	1
Fn 1-01	0
Fn 1-02	0
Fn 1-06	2
Fn 3-00	60
Fn 3-01	6
Fn 3-17	0
Fn 4-00	0
Fn 5-00	0
Fn 5-01	1
Fn 5-05	18
Fn 5-06	23
Fn 9-08	0
Fn 9-09	0
Fn 9-10	0
Fn 10-0	10 or 11 or 12

Type: 7200MA

Function code	set value
Bn-01	5
Bn-02	5
Bn-10	0
Bn-12	0
Bn-13	2
Bn-14	1
Bn-15	1
Sn-02	09 or 10
Sn-04	1
Sn-05	1
Sn-10	0
Sn-20	0
Sn-24	0
Sn-33	0



IRIZAR HEAVY INDUSTRIES INC

1512 Adamson View, Edmonton, Alberta, T6W 0V4, Canada

P: 1 780 450 6695, F: 1 780 485 6677

E mail: jirizar@jirizar.com, Website: www.jirizar.com



8. LIMITED WARRANTY

IRIZAR HEAVY INDUSTRIES INC warrants all new equipment to be free from defects in material and workmanship for the period of one year, provided that the equipment is installed and operated according to instructions. Any repairs or modification made by unauthorized third parties without written consent shall void this warranty. IRIZAR HEAVY INDUSTRIES INC's obligation under this warranty is expressly limited to replacing or repairing any defective part or correcting any manufacturing defect without charge during the warranty period, if IRIZAR's factory inspection confirms the existence of such defects. Exercise of IRIZAR's option of replacement or repair will be at IRIZAR's factory and/or warehouse; Therefore no reimbursement for transportation cost of any kind will be allowed. IRIZAR HEAVY INDUSTRIES INC will not be liable for any loss or consequential damage or expense accruing directly or indirectly from the use of equipment covered by this limited warranty.