INSTRUCTIONS for

F-15-195-F
March 2015

OXWELD®

Regulation Panels

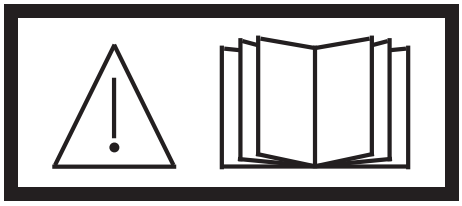
Panel Part No.	Service	Nominal Capacity		Max. Inlet Pressure psig (bar)		Max. Delivery Pressure psig (bar)		
		Oxygen ft^3/hr (m^3/hr)	Fuel Gas ft^3/hr (m^3/hr)	Oxygen	Fuel Gas	Oxygen		Fuel Gas
						Cut	Preheat	
2119101	2- Outlet High Flow	10,000 (283)	2,000 (945)	300 (20.6)	100 (6.9)	150 (10.3)	75 (5.2)	75 (5.2)
2116395	3- Outlet High Flow							
2224539	2 -Outlet Standard Flow	6,000 (170)						
2224540	3 - Outlet Standard Flow							
2225202	2 - Outlet Standard Flow No Filter (Not Illustrated)							
2225203	3- Outlet Standard Flow No Filter (Not Illustrated)							

⚠ CAUTION

These INSTRUCTIONS are for experienced operators. If you are not fully familiar with the principles of operation and safe practices for Oxy-Fuel gas equipment, we urge you to read our booklet "Precautions and Safe Practices for Welding, Cutting, and Heating", Form 2035. Do NOT permit untrained persons to install, operate or maintain this equipment. Do NOT attempt to install or operate this equipment until you have read and fully understand these instructions. If you do not fully understand these instructions, contact your supplier for further information.

Be sure this information reaches the operator.
You can get extra copies through your supplier.

ESAB® ESAB Welding & Cutting Products



READ AND UNDERSTAND INSTRUCTION MANUAL BEFORE INSTALLING OR OPERATING. PROTECT YOURSELF AND OTHERS!

CAUTION

These INSTRUCTIONS are for experienced operators. If you are not fully familiar with the principles of operation and safe practices for gas welding and cutting equipment, we urge you to read our booklet, "Precautions and Safe Practices for Gas Welding, Cutting, and Heating," Form F-2035. Do NOT permit untrained persons to install, operate, or maintain this equipment. Do NOT attempt to install or operate this equipment until you have read and fully understand these instructions. If you do not fully understand these instructions, contact your supplier for further information. Be sure to read the Safety Precautions before installing or operating this equipment.

USER RESPONSIBILITY

This equipment will perform in conformity with the description thereof contained in this manual and accompanying labels and/or inserts when installed, operated, maintained and repaired in accordance with the instructions provided. This equipment must be checked periodically. Malfunctioning or poorly maintained equipment should not be used. Parts that are broken, missing, worn, distorted or contaminated should be replaced immediately. Should such repair or replacement become necessary, the manufacturer recommends that a telephone or written request for service advice be made to the Authorized Distributor from whom it was purchased.

This equipment or any of its parts should not be altered without the prior written approval of the manufacturer. The user of this equipment shall have the sole responsibility for any malfunction which results from improper use, faulty maintenance, damage, improper repair or alteration by anyone other than the manufacturer or a service facility designated by the manufacturer.

IMPORTANT SAFEGUARDS

When using Oxy-Fuel Gas Torches, basic safety precautions should always be followed:

a. Never use Acetylene gas at a pressure over 15 psig.
b. Never use damaged equipment.
c. Never use oil or grease on or around Oxygen equipment.
d. Never use Oxygen or fuel gas to blow dirt or dust off clothing or equipment.
e. Never light a torch with matches or a lighter. Always use a striker.
f. Always wear the proper welding goggles, gloves and clothing when operating Oxy-Acetylene equipment. Pants should not have cuffs.
g. Do not carry lighters, matches or other flammable objects in pockets when welding or cutting.
h. Always be aware of others around you when using a torch.
i. Be careful not to let welding hoses come into contact with torch flame or sparks from cutting.
j. SAVE THESE INSTRUCTIONS.

BE SURE THIS INFORMATION REACHES THE OPERATOR.
YOU CAN GET EXTRA COPIES THROUGH YOUR SUPPLIER.

SAVE THESE INSTRUCTIONS!

SAFETY PRECAUTIONS

WARNING

These Safety Precautions are for your protection. They summarize precautionary information from the references listed in Additional Safety Information section. Before performing any installation or operating procedures, be sure to read and follow the safety precautions listed below as well as all other manuals, material safety data sheets, labels, etc. Failure to observe Safety Precautions can result in injury or death.

PROTECT YOURSELF AND OTHERS - Some welding, cutting and gouging processes are noisy and require ear protection. Hot metal can cause skin burns and heat rays may injure eyes. Training in the proper use of the processes and equipment is essential to prevent accidents. Also:

1. Always wear safety glasses with side shields in any work area, even if welding helmets, face shields, or goggles are also required.
2. Wear flameproof gauntlet type gloves, heavy long-sleeve shirt, cuffless trousers, high-topped shoes, and a welding helmet or cap for hair protection, to protect against hot sparks and hot metal. A flameproof apron may also be desirable as protection against radiated heat and sparks.
3. Hot sparks or metal can lodge in rolled up sleeves, trousers cuffs, or pockets. Sleeves and collars should be kept buttoned, and open pockets eliminated from the front of clothing.
4. Protect other personnel from hot sparks with a suitable non-flammable partition or curtains.
5. Use goggles over safety glasses when chipping slag or grinding. Chipped slag may be hot and can travel considerable distances. Bystanders should also wear goggles over safety glasses.

FIRES AND EXPLOSIONS - Heat from a flame can act as an ignition source. Hot slag or sparks can also cause fires or explosions. Therefore:

1. Remove all combustible materials well away from the work area or completely cover the materials with a protective non-flammable covering. Combustible materials include wood, cloth, sawdust, liquid and gas fuels, solvents, paints and coatings, paper, etc.
2. Hot sparks or hot metal can fall through cracks or crevices in floors or wall openings and cause a hidden smoldering fire on the floor below. Make certain that such openings are protected from hot sparks and metal.
3. Do not weld, cut, or perform any other hot work on materials, containers, or piping until it has been completely cleaned so that no substances on the material can produce flammable or toxic vapors. Do not do hot work on closed containers. They may explode.
4. Have fire extinguishing equipment handy for instant use, such as a garden hose, a pail of water or sand, or portable fire extinguisher. Be sure you are trained in its use.
5. After completing operations, inspect the work area to be sure that there are no hot sparks or hot metal which could cause a later fire. Use fire watchers when necessary.
6. For additional information, refer to NFPA Standard 51B, "Fire Prevention in Use of Cutting and Welding Processes", which is available from the National Fire Protection Association, Batterymarch Park, Quincy, MA 02269.

FUMES AND GASES - Fumes and gases, particularly in confined spaces, can cause discomfort or injury. Do not breathe fumes or gases from welding or cutting, Therefore:

1. Always provide adequate ventilation in the work area by natural or mechanical ventilation means. Do not weld, cut, or gouge on materials such as galvanized steel, stainless steel, copper, zinc, lead, beryllium, or cadmium unless positive mechanical ventilation is provided. Do not breathe fumes and gases from these materials.
2. If you develop momentary eye, nose, or throat irritation while operating, this is an indication that ventilation is not adequate. Stop work at once and take necessary steps to improve ventilation in the work area. Do not continue to operate if physical discomfort persists.
3. Refer to ANSI/ASC Standard Z49.1 listed below for specific ventilation recommendations.
4. **WARNING: This product, when used for welding or cutting, produces fumes or gases which contain chemicals known to the State of California to cause birth defects and, in some cases, cancer. (California Health & Safety Code §25249.5 et seq.)**

EQUIPMENT MAINTENANCE - Faulty or improperly maintained equipment, such as torches, hoses and regulators, can result in poor work, but even more important, it can cause injury or death through fires. Therefore:

1. Always have qualified personnel perform the installation, troubleshooting, and maintenance work. Do not operate or repair any equipment unless you are qualified to do so.
2. Keep all oxy-fuel equipment free of grease or oil. Grease, oil, and other similar combustible materials, when ignited, can burn violently in the presence of oxygen.
3. Do not abuse any equipment or accessories. Keep equipment away from heat and wet conditions, oil or grease, corrosive atmospheres and inclement weather.
4. Keep all safety devices in position and in good repair.
5. Use equipment for its intended purpose. Do not modify it in any manner.

GAS CYLINDER HANDLING - Gas cylinders, if mishandled, can rupture or explode violently. Sudden rupture of a cylinder, valve or relief device can injure or kill you. Therefore:

1. Use the proper gas for the process and use the proper pressure reducing regulator designed to operate from the compressed gas cylinder. Do not use adaptors to mount the regulator on the cylinder. Maintain hoses and fittings in good condition. Follow manufacturer's operating instructions for mounting the regulator to the gas cylinder.
2. Always secure cylinders in an upright position by chain or strap to suitable hand trucks, benches, walls, post, or racks. Never secure cylinders to work tables or fixtures where they may become part of an electrical circuit.
3. When not in use, keep cylinder valves closed. Have the valve protection cap in place on top of the cylinder if no regulators is installed. Secure and move cylinders by using suitable hand trucks. Avoid rough handling of cylinders.
4. Locate cylinders away from heat, sparks, or flame of a welding, cutting, or gouging operation. Never strike an arc on a cylinder.
5. For additional information, refer to CGA Standard P-1, "Precautions for Safe Handling of Compressed Gases in Cylinders:, which is available from the Compressed Gas Association, 1235 Jefferson Davis Highway, Arlington, VA 22202.

ADDITIONAL SAFETY INFORMATION - For more information on safe practices for oxy-fuel welding and cutting equipment, ask your distributor for a copy of "Precautions and Safe Practices for Gas Welding, Cutting, and Heating", Form 2035. Gas apparatus safety guidelines are also available on video cassettes from your distributor.

The following publications, which are available from the American Welding Society, 550 N.W. LeJuene Road, Miami, FL 33126, are recommended to you:

1. ANSI/AWS Z49.1 - "Safety in Welding and Cutting".
2. AWS F4.1 - "Recommended Safe Practices for the Preparation for Welding and Cutting of Containers and Piping That Have Held Hazardous Substances"/
3. AWS SP - "Safe Practices" - Reprint, Welding Handbook.

MEANING OF SYMBOLS - As used throughout this manual: Means Attention! Be Alert! Your safety is involved.

DANGER **Means immediate hazards which, if not avoided, will result in immediate, serious personal injury or loss of life.**

WARNING **Means potential hazards which could result in personal injury or loss of life.**

CAUTION **Means hazards which could result in minor personal injury.**

SP-GA 10/98

INSTALLATION

As supplied, Oxweld Regulation Panels are ready to be permanently flush-mounted to a wall or column. Bolt holes in the steel frame are conveniently located to simplify placement of the panel. Regulation panels should be mounted securely by fastening the frame to the wall or steel column. (See specific Regulation Panel Diagram for hole spacing and physical size).

NOTE: Install panels in vertical position, gas inlets up.

1. If mounting to a wall of masonry construction, use 1/2-in. bolts or lag screws. Thread the bolts into expansion anchors placed in holes drilled in the wall.

2. If mounting to a steel column, fabricate horizontal braces wide enough to extend to the outside edges ofthe panel. Permanently mount the braces to the column by securely welding or bolting in place then attach the panel with 1/2-in. machine hardware.

CONNECTIONS

INLET CONNECTIONS

IMPORTANT!

Before beginning, make sure all inlet and outlet ball valves are closed and pressure adjusting screws on regulators are backed out all the way. Regulation Panels are supplied with 3/4" NPT oxygen and fuel gas inlet ball valves. For proper installation, permanently attach mill piping to gas service inlets. See Figures 2 and 3.

OUTLET CONNECTIONS

(2) Outlet Panels - P/N 2219101, 2224539 and 2225202 -Attach 3/8" diameter fuel gas hose with "B" size (CGA No. 023) fitting to brass fuel gas outlet nipple then attach 1/2" diameter oxygen hose with "C" size (CGA No. 024) fitting to oxygen outlet nipple.

(3) Outlet Panels-PiN 2116395, 2224540 and 2225203-Attach 3/8" diameter fuel gas hose with "B" size (CGA No. 023) fitting to brass fuel gas outlet nipple then attach 3/8" diameter oxygen hose with "B" size (CGA No. 022) fitting to oxygen outlet nipple.

NOTE: Make certain hose lengths do not exceed recommended maximum lengths for the torch being used.

WARNING

PIPE FUEL GAS RELIEF VALVE TO EXHAUST OUT OF BUILDING AS NOTED IN REGULATION PANEL DIAGRAMS.

TESTING FOR LEAKS

All connections should be thoroughly tested for leaks after the panel is first hooked up, and at regular intervals thereafter. After all connections have been made, make sure all valves downstream are closed. Then turn in the regulator pressure-adjusting screw until the oxygen delivery-pressure gauge registers 50 psi, the fuel gas delivery-pressure gauge registers 10 psi. Using Leak Test Solution suitable for oxygen service, such as P/N 998771 (8 oz. container) check for leaks at all connections. Bubbling at any point indicates leakage and the leaking connection should be tightened. If this does not stop the leakage, close the appropriate inlet valve, open the downstream valve to remove all pressure from the line, and finally release the regulator pressure-adjusting screw by turning it counterclockwise. Then, break the leaking connection, wipe metal seating surfaces with a clean, dry cloth, and examine them or nicks and scratches. Remake the connection(s) and retest. Do not try to operate until all connections are gas-tight.

OPERATING INSTRUCTIONS

To Increase Delivery Pressure
Turn the pressure-adjusting screw to the right (clockwise). To decrease delivery pressure, turn the pressure adjusting screw to the left (counterclockwise). The torch and regulation panel ball valves should be open whenever adjusting delivery pressure. If they are not open, true work-pressure reading on the delivery-pressure gauge cannot be obtained.

To Release Pressure
If work is to be stopped for a half-hour or more, release all pressure from the regulators as follows:

1. Close the inlet ball valves.
2. Open the torch valves until the regulator gauge hands return to the pins.

3. Release the pressure adjusting screws by turning thern to the left (clockwise) until they turn freely.
4. Close the torch valves. Always follow the steps outlined above before removing a regulator from a station. If the regulator is to be out of service for several days, or longer, turn in the pressure adjusting screw enough to move the seat off the nozzle.

MAINTENANCE

Refer to the individual "Maintenance Instructions" found in the appropriate instructions for the component parts of the regulation panels. These instructions are supplied with every panel. Refer to the list below and contact your Oxweld supplier if additional copies are needed.

High Flow Panels
R-52 Regulator Instruction Literature F-12-859

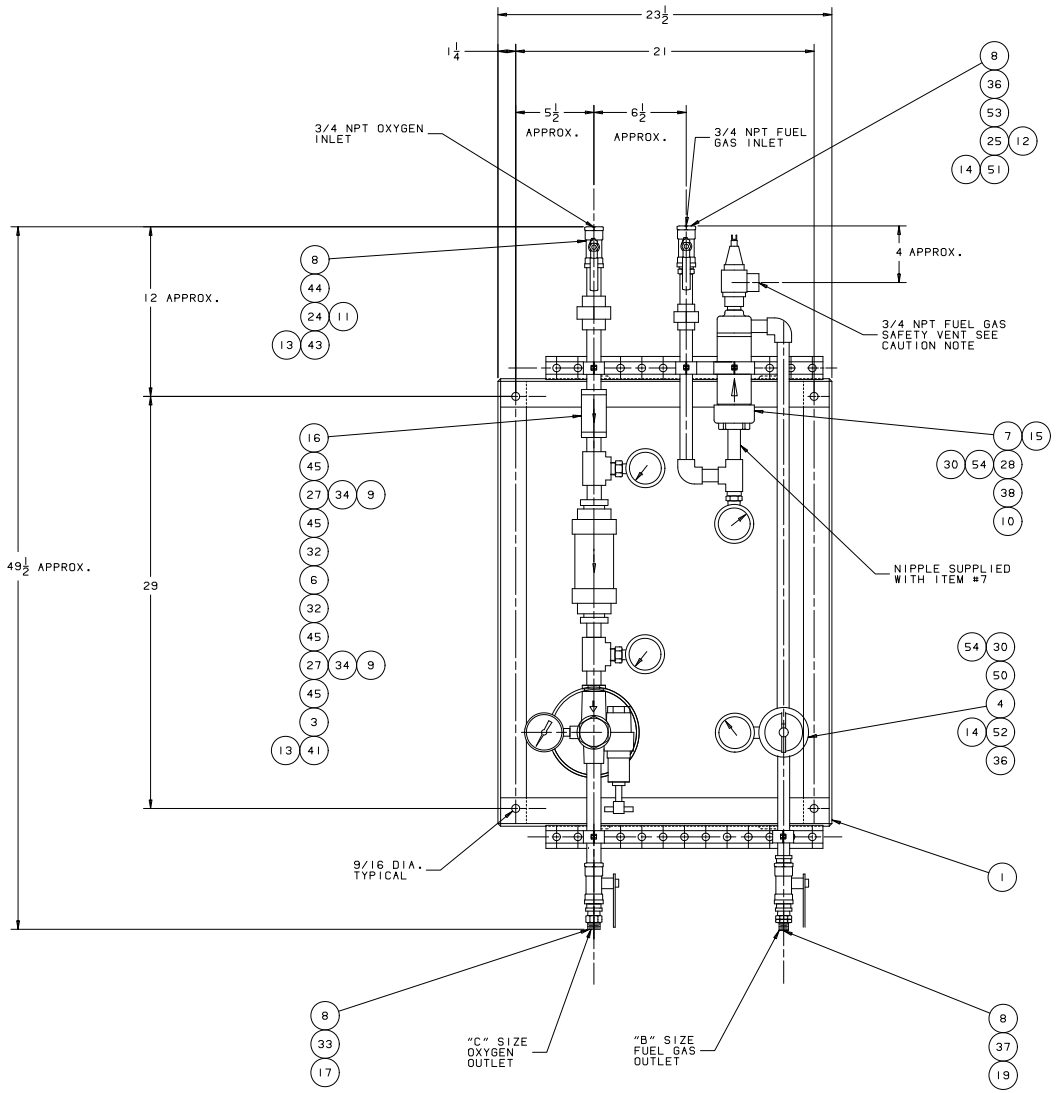
Common Components
H-16 Flash Arrestor Instruction Literature F-9615
Oxygen Line Filter F-12-950
(Except panels without filter)

REPLACEMENT PARTS

Major components are listed in Figures 2 and 3. For individual parts of these components, refer to the specific instruction literature. (See "Maintenance" section).

WARNING

DO NOT USE OIL ON THIS APPARATUS. OIL AND GREASE ARE EASILY IGNITED AND BURN VIOLENTLY IN THE PRESENCE OF OXYGEN UNDER PRESSURE



NOTES:

1. PAINT PIPING AS PER C-2114184. OXYGEN PIPING, COLOR #3 GREEN FUEL GAS PIPING, COLOR #4 RED. COAT ENDS OF CHANNEL, ITEM #19 WITH CLEAR SEALER.
2. CLEAN ALL OXYGEN PIPING FOR OXYGEN SERVICE BEFORE ASSY.
3. ALL OXYGEN CONNECTIONS TO BE MADE WITH TEFLON TAPE. FOR FUEL GAS CONNECTIONS USE LOCTITE PST SEALANT #592.
4. LEAK TEST ALL PIPING:
   OXYGEN: 150 PSI
   FUEL GAS: 75 PSI

CAUTION:

FUEL GAS SAFETY VENT LINE TO BE RUN BY CUSTOMER TO OUTSIDE ATMOSPHERE. DISCHARGE FROM VENT MUST NOT BE NEAR HEAT OR FLAMES, NOR ENDANGER PERSONNEL OR PROPERTY. AVOID TRAPS OR POCKETS IN LINES. MUST TERMINATE IN HOOD OR BEND.

CUSTOMER DATA
NAME:
LOCATION:
MACHINE CODE:
NO. REQ'D PER MACH.:
ASSEMBLY DRAWING:
PROJECT NUMBER:
REVISION: LATEST
REVISION: 0 DATE: 14/06/24
BY: SCH APPROVED: BAW
CHANGE NOTICE NO.: CN-053173
SUPERSEDES:
SUPERSEDES:

TOLERANCES
UNLESS OTHERWISE SPECIFIED
INCH DIMENSIONS
FRAC ±1/32 DEC ±.NONE
ANGLE ± 1/2
METRIC DIMENSIONS
0.- mm- ±
0.0mm- ±
NONE ALL SURFACES MAX.ROUGHNESS
REMOVE ALL BURRS BREAK ALL SHARP EDGES

	NAME	DATE
DRAWN	JAD	97/10/30
CHECKED	SAE	
APPROVED	RCS	
HARD COPY:		

THIRD ANGLE PROJECTION

THE ESAB GROUP L-TEC STEEL INDUSTRY PRODUCTS
WELDING & CUTTING SYSTEMS FLORENCE, SC

TITLE
PANEL, REGULATOR, (TWO OUTLET)
.....CUT-OFF MACHINE.....

D-2119101 REV Q

SCALE: SHEET 1 OF 1

CAD DRAWING
REVISIONS BY SIP CAD ONLY

BILL OF MATERIAL

X=ESAB TO SUPPLY ALL PARTS DENOTED BY THE LETTER X AND PRINTS OF ALL REMAINING PARTS. VENDOR TO SUPPLY ALL ITEMS NOT DENOTED BY X.
F=8:PACKED VS UNPACKED
F=9:FINISHED VS UNFINISHED
S=DRWG SIZE:A,B,C,D,E,J,M(BOM)
PNCD=PARTNUMBER CODE
SIP =L-TEC PRODUCT
ESAB=ESAB STD PRODUCT
[ ] =UNDETERMINED

ITEM	XF	S	PART/CODE	QTY	DESCRIPTION	PNCD	REV
1		D	2226724	1	FRAME,PANEL,REGULATION,HI-FLOW		N
2							
3	X8	D	2117105	1	REGULATOR,OXY,MOUNTED PILOT,R52,-200	SIP	Q
4	X	A	0780-1199		REGULATOR,STATION,75 PSI,1/2 NPT, L-711D-500		N
5							
6	X8	C	2116734	1	FILTER,OXYGEN,1",50 MICRON,S-5	SIP	
7	X	C	2120396	1	VALVE,CHECK,SAFETY,BACKPRESSURE,DRY,H-16	SIP	
8	X8	B	639674	4	VALVE,SHUTOFF	SIP	N
9	X8		19137	2	GAUGE,PRESSURE,2-1/2,400 PSI,WHT	SIP	
10	X8		19135	1	GAUGE,PRESSURE,2-1/2,100 PSI,WHT	SIP	
11	X	B	2116899	1	GASKET,3/4,BRONZE,250#	SIP	K
12	X	A	2226719	1	GASKET, UNION, 1/2 125# BRONZE/150# MALL I	SIP	N
13	X	A	2028772	2	CLAMP,CUSHION,PIPE,3/4;HOSE,1/2 (HYDRA-ZORB #200075)	SIP	
14	X	A	2028773	2	CLAMP,CUSHION,PIPE,1/2 (HYDRA-ZORB #200050)	SIP	
15	X	A	2115670	1	CLAMP,CUSHION,PIPE,2 (HYDRA-ZORB #200200)	SIP	N
16	X8	A	188W20	1	VALVE,CHECK,3/4 NPT		
17	X8	A	18Z55	1	CONNECTION,C-SIZE,1/2 MPT,OXY,BRASS	SIP	
18							
19	X8	A	3390	1	CONNECTION,B-SIZE,1/4 MPT,FG,BRASS	SIP	N
20							
21							
22							
23							
24			65145325	1	UNION,PIPE,SCREW,FEM,GRD JOINT,3/4, 250#,BRONZE	ESAB	K
25			65245050	1	UNION,PIPE,SCREW,FEM,GRD JOINT,1/2, 150#,MALL IRON	ESAB	
26							
27			68160105	2	TEE,PIPE,SCREW,3/4, 250#,BRONZE	ESAB	K
28			43500130	1	TEE,PIPE,SCREW,1/2, 150#,MALL IRON	SIP	
29							
30			43250110	2	ELBOW,PIPE,SCREW,90,1/2, 150#,MALL IRON	SIP	
31							
32			68108100	2	BUSHING,PIPE,SCREW,HEX,OUT,1" X 3/4, BRONZE	ESAB	
33			68100280	1	BUSHING,PIPE,SCREW,HEX,OUT,3/4 X 1/2,BRONZE	ESAB	
34			68100276	2	BUSHING,PIPE,SCREW,HEX,OUT,3/4 X 1/4,BRONZE	ESAB	
35							
36				2	BUSHING,PIPE,SCREW,HEX,OUT,3/4 X 1/2, 150#,MALL IRON		
37			43052245	1	BUSHING,PIPE,SCREW,HEX,OUT,3/4 X 1/4, 150#,MALL IRON	SIP	
38			43052125	1	BUSHING,PIPE,SCREW,HEX,OUT,1/2 X 1/4,150#,MALL IRON	SIP	
39							
40							

LISTED	CHECKED	APPROVED
WS	JDC	JAD
85/03/23	85/03/23	85/03/23

ACTIVITY:

CUSTOMER DATA

NAME:
LOCATION:
MACHINE CODE:
NO. REQ'D PER MACH.:
PROJECT NUMBER:

REVISION: LATEST

REVISION: Q DATE: 14/06/24
BY: SCH APPROVED: 14/06/24
CHANGE NOTICE NO.: CN-053173

SUPERSEDED:
SUPERSEDES:

THE ESAB GROUP
WELDING & CUTTING SYSTEMS, FLORENCE, SC

L-TEC
STEEL INDUSTRY PRODUCTS

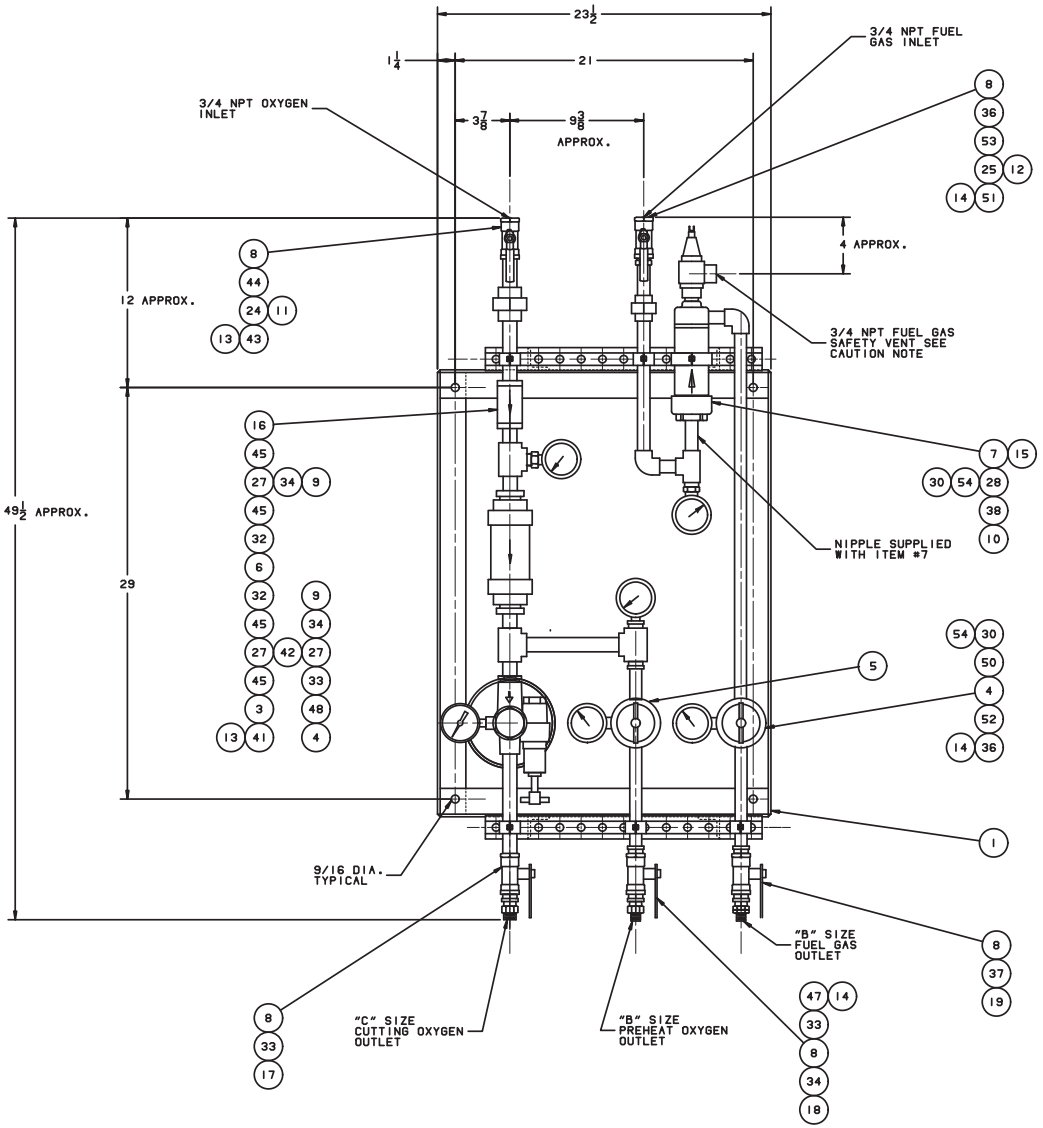
PANEL,
REGULATOR,
(TWO OUTLET)
.....CUT-OFF MACHINE.....

ASSEMBLE PER: D-2119101
HARD COPY:

REV. Q

SHEET 1 OF 2

BM - 2119101



NOTES:

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2. CLEAN ALL OXYGEN PIPING FOR OXYGEN SERVICE BEFORE ASSY.
3. ALL OXYGEN CONNECTIONS TO BE MADE WITH TEFLON TAPE. FOR FUEL GAS CONNECTIONS USE LOCTITE PST SEALANT #592.
4. LEAK TEST ALL PIPING:
   OXYGEN: 150 PSI
   FUEL GAS: 75 PSI

CAUTION:

FUEL GAS SAFETY VENT LINE TO BE RUN BY CUSTOMER TO OUTSIDE ATMOSPHERE. DISCHARGE FROM VENT MUST NOT BE NEAR HEAT OR FLAMES, NOR ENDANGER PERSONNEL OR PROPERTY. AVOID TRAPS OR POCKETS IN LINES. MUST TERMINATE IN HOOD OR BEND.

CUSTOMER DATA
NAME:
LOCATION:
MACHINE CODE:
NO. REQ'D PER MACH.:
ASSEMBLY DRAWING:
PROJECT NUMBER:
REVISION: LATEST
REVISION: P DATE: 14/08/24
BY: SCH APPROVED: DAB
CHANGE NOTICE NO. CN-005009
SUPERSEDES:
SUPERSEDED:

BUSINESS CONFIDENTIAL
THIS DRAWING AND THE INFORMATION CONTAINED THEREIN ARE THE CONFIDENTIAL AND PROPRIETARY PROPERTY OF THE ESAB GROUP, INC. AND ARE NOT TO BE USED, COPIED OR REPRODUCED WITHOUT ESAB'S PRIOR WRITTEN CONSENT.

TOLERANCES
UNLESS OTHERWISE SPECIFIED
INCH DIMENSIONS
FRAC ± 1/32 DEC ± NONE
ANGLE ± 1/2
METRIC DIMENSIONS
X.X ± .4
X.XX ± .0
NONE ALL SURFACES 125 MICROINCHES
REMOVE ALL BURRS BREAK ALL SHARP EDGES

	NAME	DATE
DRAWN	JAD	97/10/27
CHECKED	SAE	97/10/31
APPROVED	RCS	97/10/31
HARD COPY:		

THIRD ANGLE PROJECTION

THE ESAB GROUP
WELDING & CUTTING SYSTEMS
FLORENCE, SC
L-TEC STEEL INDUSTRY PRODUCTS

TITLE
PANEL, REGULATOR, (THREE OUTLET)
.....CUTTING MACHINE...

D-2116395 REV P

SCALE: 1=4 SHEET 1 OF 1

CAD DRAWING
REVISIONS BY SIP CAD ONLY

BILL OF MATERIAL

X=ESAB TO SUPPLY ALL PARTS DENOTED BY THE LETTER X AND PRINTS OF ALL REMAINING PARTS. VENDOR TO SUPPLY ALL ITEMS NOT DENOTED BY X.

F=8:PACKED VS UNPACKED
F=9:FINISHED VS UNFINISHED

S=DRWG SIZE:A,B,C,D,E,J,M(BOM)

PNCD=PARTNUMBER CODE
SIP =L-TEC PRODUCT
ESAB=ESAB STD PRODUCT
[ ] =UNDETERMINED

ITEM	XF	S	PART/CODE	QTY	DESCRIPTION	PNCD	REV
1		D	2226724	1	FRAME,PANEL,REGULATION,HI-FLOW		N
2							
3	X8	D	2117105	1	REGULATOR,OXY,MOUNTED PILOT,R52,10M	SIP	P
4	X	A	0780-1199	1	REGULATOR,STATION,75 PSI,1/2 NPT,L-711D-500		N
5			0780-1229	1	REGULATOR,STATION,4-80 PSI,1/2 NPT,L-700C-500		
6	X8	C	2116734	1	FILTER,OXYGEN,1",50 MICRON,S-5	SIP	
7	X	C	2120396	1	VALVE,CHECK,SAFETY,BACKPRESSURE,DRY,H-16	SIP	
8	X8	B	639674	5	VALVE,SHUTOFF	SIP	N
9	X8		19137	2	GAUGE,PRESSURE,2-1/2,400 PSI,WHT	SIP	
10	X8		19135	1	GAUGE,PRESSURE,2-1/2,100 PSI,WHT	SIP	
11	X	B	2116899	1	GASKET,3/4,BRONZE,250#	SIP	O
12	X	A	2226719	1	GASKET, UNION, 1/2 125# BRONZE/150# MALL I	SIP	N
13	X	A	2028772	2	CLAMP,CUSHION,PIPE,3/4;HOSE,1/2 (HYDRA-ZORB #200075)	SIP	
14	X	A	2028773	3	CLAMP,CUSHION,PIPE,1/2 (HYDRA-ZORB #200050)	SIP	
15	X	A	2115670	1	CLAMP,CUSHION,PIPE,2 (HYDRA-ZORB #200200)	SIP	N
16	X8	A	188W20	1	VALVE,CHECK,3/4 NPT		
17	X8	A	18Z55	1	CONNECTION,C-SIZE,1/2 MPT,OXY,BRASS	SIP	
18	X8	A	3389	1	CONNECTION,B-SIZE,1/4 MPT,OXY,BRASS	SIP	N
19	X8	A	3390	1	CONNECTION,B-SIZE,1/4 MPT,FG,BRASS	SIP	N
20							
21							
22							
23							
24			65145325	1	UNION,PIPE,SCREW,FEM,GRD JOINT,3/4, 250#,BRONZE	ESAB	O
25			65245050	1	UNION,PIPE,SCREW,FEM,GRD JOINT,1/2, 150#,MALL IRON	ESAB	
26							
27			68160105	3	TEE,PIPE,SCREW,3/4, 250#,BRONZE	ESAB	O
28			43500130	1	TEE,PIPE,SCREW,1/2, 150#,MALL IRON	SIP	
29							
30			43250110	2	ELBOW,PIPE,SCREW,90,1/2, 150#,MALL IRON	SIP	
31							
32			68108100	2	BUSHING,PIPE,SCREW,HEX,OUT,1" X 3/4, BRONZE	ESAB	
33			68100280	3	BUSHING,PIPE,SCREW,HEX,OUT,3/4 X 1/2,BRONZE	ESAB	
34			68100276	3	BUSHING,PIPE,SCREW,HEX,OUT,3/4 X 1/4,BRONZE	ESAB	
35							
36				2	BUSHING,PIPE,SCREW,HEX,OUT,3/4 X 1/2, 150#,MALL IRON		
37			43052245	1	BUSHING,PIPE,SCREW,HEX,OUT,3/4 X 1/4, 150#,MALL IRON	SIP	
38			43052125	1	BUSHING,PIPE,SCREW,HEX,OUT,1/2 X 1/4,150#,MALL IRON	SIP	
39							
40							

LISTED	CHECKED	APPROVED
WS	SAE	SAE
85/03/20	97/10/31	97/10/31

ACTIVITY:

THE ESAB GROUP
WELDING & CUTTING SYSTEMS, FLORENCE, SC

L-TEC
STEEL INDUSTRY PRODUCTS

PANEL, REGULATOR, (THREE OUTLET)
.....CUTTING MACHINE...

CUSTOMER DATA

NAME:
LOCATION:
MACHINE CODE:
NO. REQ'D PER MACH.:
PROJECT NUMBER:

REVISION: LATEST

REVISION: P DATE: 14/06/24
BY: SCH APPROVED: 14/06/24
CHANGE NOTICE NO.: CN-995009

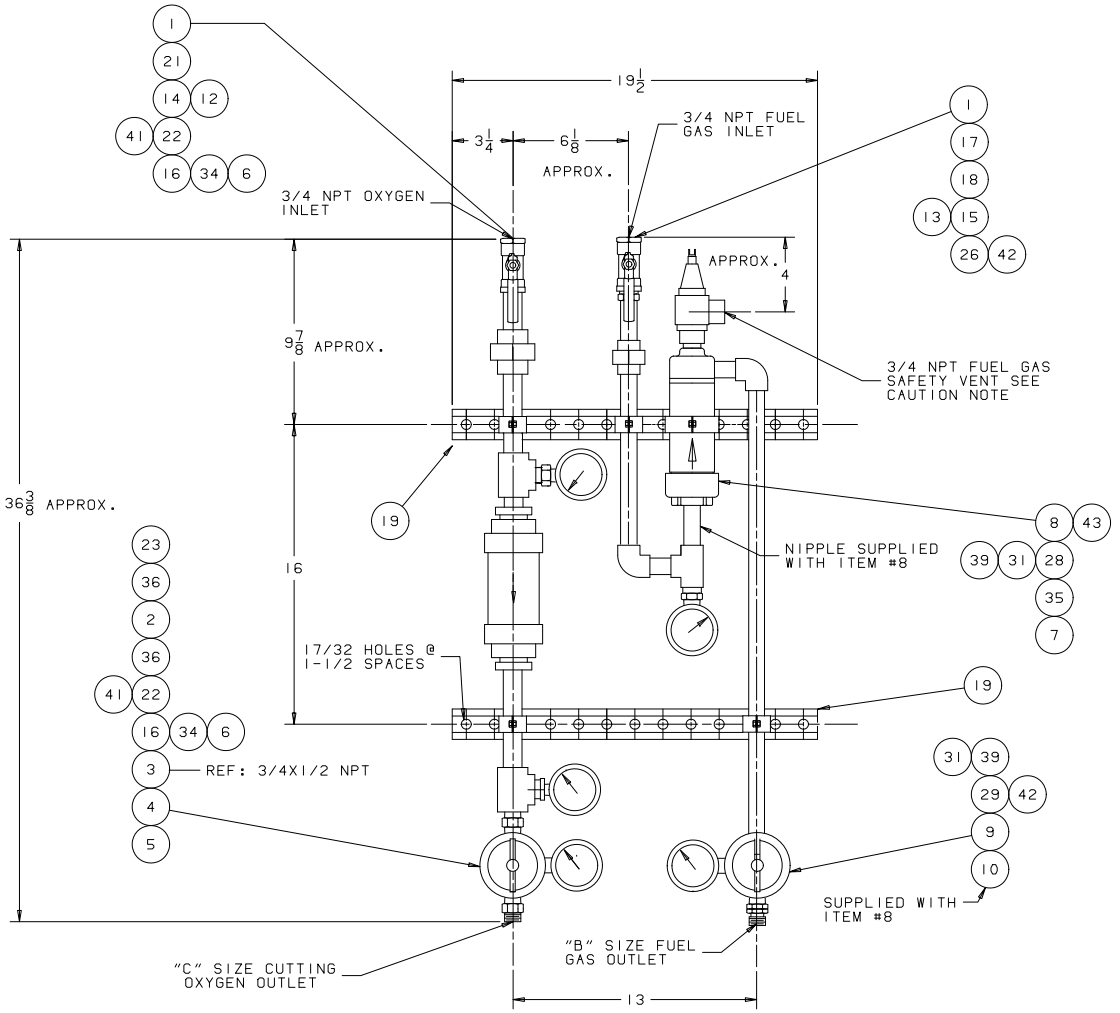
ASSEMBLE PER: D-2116395
HARD COPY:

REV. P

SUPERSEDED:
SUPERSEDES:

SHEET 1 OF 2

BM - 2116395



NOTES:

1. PAINT PIPING AS PER C-2114184. OXYGEN PIPING, COLOR #3 GREEN FUEL GAS PIPING, COLOR #4 RED. COAT ENDS OF CHANNEL, ITEM #19 WITH CLEAR SEALER.
2. CLEAN ALL OXYGEN PIPING FOR OXYGEN SERVICE BEFORE ASSY.
3. ALL OXYGEN CONNECTIONS TO BE MADE WITH TEFLON TAPE. FOR FUEL GAS CONNECTIONS USE LOCTITE PST SEALANT #592.
4. LEAK TEST ALL PIPING:
   OXYGEN: 150 PSI
   FUEL GAS: 75 PSI

CAUTION:

FUEL GAS SAFETY VENT LINE TO BE RUN BY CUSTOMER TO OUTSIDE ATMOSPHERE. DISCHARGE FROM VENT MUST NOT BE NEAR HEAT OR FLAMES, NOR ENDANGER PERSONNEL OR PROPERTY. AVOID TRAPS OR POCKETS IN LINES. MUST TERMINATE IN HOOD OR BEND.

CUSTOMER DATA
NAME:
LOCATION:
MACHINE CODE:
NO. REQ'D PER MACH.:
ASSEMBLY DRAWING:
PROJECT NUMBER:
REVISION: LATEST
REVISION: E DATE: 99/03/23
BY: DAN APPROVED: SAE
CHANGE NOTICE NO. CN-995009
SUPERSEDES:
SUPERSEDES:

TOLERANCES
UNLESS OTHERWISE SPECIFIED
INCH DIMENSIONS
FRAC ± 1/16 DEC ±
ANGLE ± 1/2
METRIC DIMENSIONS
.5 mm ± 2.0mm ±
√ ALL SURFACES MAX.ROUGHNESS
REMOVE ALL BURRS BREAK ALL SHARP EDGES

	NAME	DATE
DRAWN	JAD	97/10/15
CHECKED	SAE	
APPROVED	SAE	
HARD COPY:		

THIRD ANGLE PROJECTION

ACTIVITY:

THE ESAB GROUP
WELDING & CUTTING SYSTEMS
FLORENCE, SC
L-TEC STEEL INDUSTRY PRODUCTS

TITLE
PANEL, REGULATION, 2 OUTLET, WITH FILTER

D-2224539 REV E

SCALE: NONE SHEET 1 OF 1

CAD DRAWING
REVISIONS BY SIP CAD ONLY

BILL OF MATERIAL

X=ESAB TO SUPPLY ALL PARTS DENOTED BY THE LETTER X AND PRINTS OF ALL REMAINING PARTS. VENDOR TO SUPPLY ALL ITEMS NOT DENOTED BY X.

F=8:PACKED VS UNPACKED
F=9:FINISHED VS UNFINISHED

S=DRWG SIZE:A,B,C,D,E,J,M(BOM)

PNCD=PARTNUMBER CODE
SIP =L-TEC PRODUCT
ESAB=ESAB STD PRODUCT
[ ] =UNDETERMINED

ITEM	XF	S	PART/CODE	QTY	DESCRIPTION	PNCD	REV
1	X8	B	639674	2	VALVE,SHUTOFF	SIP	
2	X8	C	2116734	1	FILTER,OXYGEN,1",50 MICRON,S-5	SIP	
3	X8	B	639717	1	VALVE,CHECK	SIP	
4	X	A	0780-1221	1	REGULATOR,STATION,150 PSI,1/2 NPT,L-700E-500		D
5	X8	A	18Z55	1	CONNECTION,C-SIZE,1/2 MPT,OXY,BRASS	SIP	
6	X8		19137	2	GAUGE,PRESSURE,2-1/2,400 PSI,WHT	SIP	
7	X8		19135	1	GAUGE,PRESSURE,2-1/2,100 PSI,WHT	SIP	D
8	X	C	2120396	1	VALVE,CHECK,SAFETY,BACKPRESSURE,DRY,H-16	SIP	
9	X	A	0780-1199	1	REGULATOR,STATION,75 PSI,1/2 NPT, L-711D-500		D
10	8	A	8693	1	CONNECTION,B-SIZE,1/2 MPT,FG,BRASS (SUPPLIED WITH ITEM 8)	SIP	D
11							
12		B	2116899	1	GASKET,3/4,BRONZE,250#	SIP	E
13	X	A	2226719	1	GASKET,UNION,1/2,125# BRONZE/150# MALL IRON		D
14			65145325	1	UNION,PIPE,SCREW,FEM,GRD JOINT,3/4, 250#,BRONZE	ESAB	E
15			65245050	1	UNION,PIPE,SCREW,FEM,GRD JOINT,1/2, 150#,MALL IRON	ESAB	
16			68160105	2	TEE,PIPE,SCREW,3/4, 250#,BRONZE	ESAB	E
17				1	BUSHING,PIPE,SCREW,HEX,OUT,3/4 X 1/2,MALL IRON		C
18				1	NIPPLE,PIPE,1/2 X 3 LG,SCH 40,STEEL		DA
19				2	CHANNEL,KINDORF,B-907 (OR EQUIVALENT),19-1/2" LONG		D
20							D
21				1	NIPPLE,PIPE,3/4 X 3 LG,SCH 40,RED BRASS		A
22				2	NIPPLE,PIPE,3/4 X 5 LG,SCH 40,RED BRASS		DA
23				1	NIPPLE,PIPE,3/4 X 2 LG,SCH 40,RED BRASS		A
24							D
25							D
26				1	NIPPLE,PIPE,1/2 X 10 LG,SCH 40,STEEL		DA
27							D
28			43500130	1	TEE,PIPE,SCREW,1/2, 150#,MALL IRON	SIP	D
29				1	NIPPLE,PIPE,1/2 X 24 LG,SCH 40,STEEL		DA
30							D
31				2	NIPPLE,PIPE,1/2 X 2 LG,SCH 40,STEEL		
32							
33							D
34			68100276	2	BUSHING,PIPE,SCREW,HEX,OUT,3/4 X 1/4,BRONZE	ESAB	
35			43052125	1	BUSHING,PIPE,SCREW,HEX,OUT,1/2 X 1/4,150#,MALL IRON	SIP	C
36			68108100	2	BUSHING,PIPE,SCREW,HEX,OUT,1" X 3/4, BRONZE	ESAB	
37							
38							
39			43250110	2	ELBOW,PIPE,SCREW,90,1/2, 150#,MALL IRON	SIP	D
40							

LISTED	CHECKED	APPROVED
JAD	SAE	SAE
95/09/27	97/10/10	97/10/10

ACTIVITY:

CUSTOMER DATA

NAME:
LOCATION:
MACHINE CODE:
NO. REQ'D PER MACH.:
PROJECT NUMBER:

REVISION: LATEST

REVISION: E DATE: 99/03/23
BY: GAW APPROVED: 99/03/23
CHANGE NOTICE NO.: CN-995009

SUPERSEDED:
SUPERSEDES:

THE ESAB GROUP
WELDING & CUTTING SYSTEMS, FLORENCE, SC

L-TEC
STEEL INDUSTRY PRODUCTS

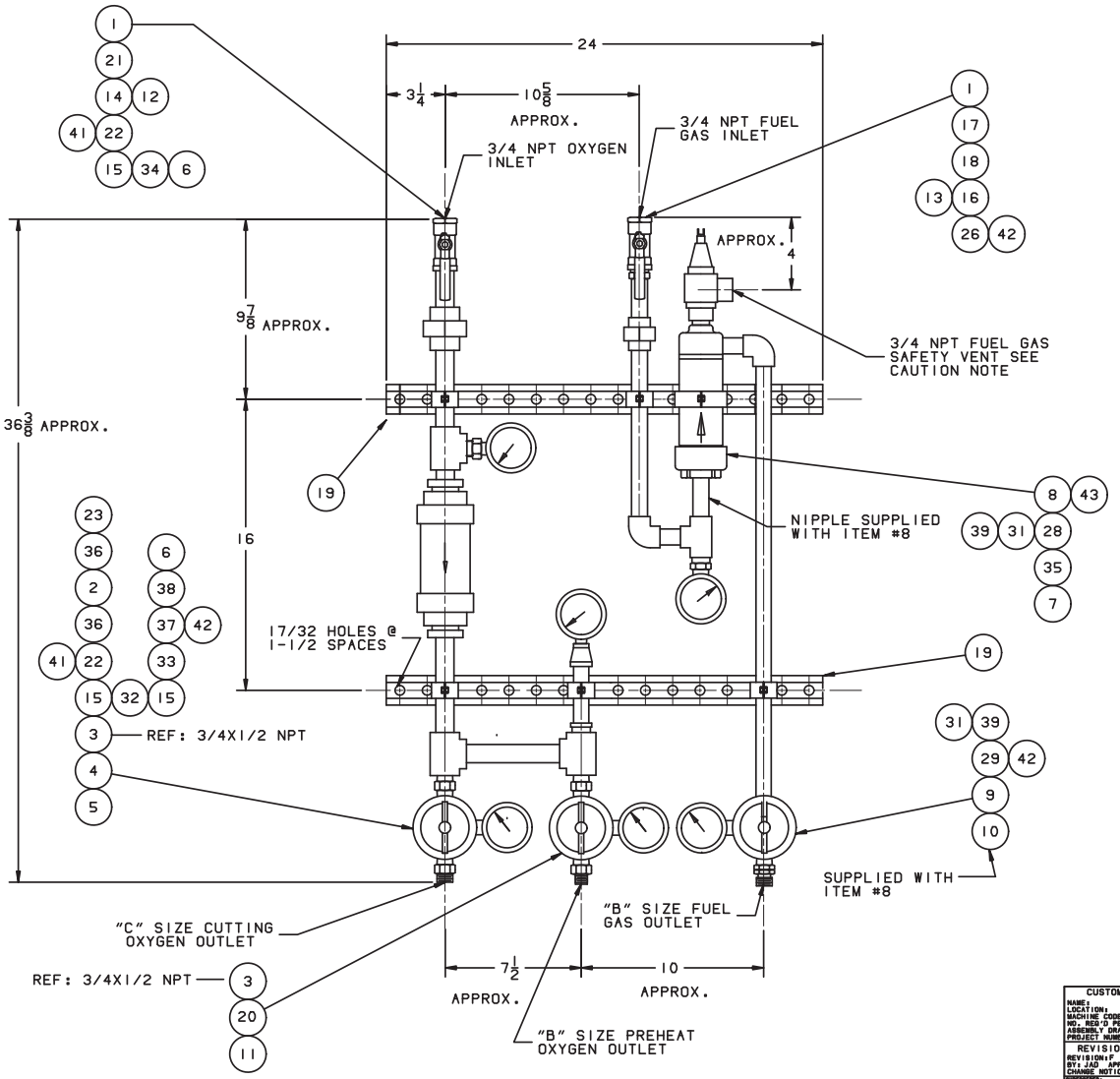
PANEL,
REGULATION,
2 OUTLET, WITH FILTER

ASSEMBLE PER: C-2224539
HARD COPY:

REV. E

SHEET 1 OF 2

BM - 2224539



NOTES:

1. PAINT PIPING AS PER C-2114184. OXYGEN PIPING, COLOR #3 GREEN FUEL GAS PIPING, COLOR #4 RED. COAT ENDS OF CHANNEL, ITEM #19 WITH CLEAR SEALER.
2. CLEAN ALL OXYGEN PIPING FOR OXYGEN SERVICE BEFORE ASSY.
3. ALL OXYGEN CONNECTIONS TO BE MADE WITH TEFLON TAPE. FOR FUEL GAS CONNECTIONS USE LOCTITE PST SEALANT #592.
4. LEAK TEST ALL PIPING:
   OXYGEN: 150 PSI
   FUEL GAS: 75 PSI

CAUTION:

FUEL GAS SAFETY VENT LINE TO BE RUN BY CUSTOMER TO OUTSIDE ATMOSPHERE. DISCHARGE FROM VENT MUST NOT BE NEAR HEAT OR FLAMES, NOR ENDANGER PERSONNEL OR PROPERTY. AVOID TRAPS OR POCKETS IN LINES. MUST TERMINATE IN HOOD OR BEND.

CUSTOMER DATA
NAME:
LOCATION:
MACHINE CODE:
NO. REQ'D PER MACH.:
ASSEMBLY DRAWING:
PROJECT NUMBER:

REVISION: LATEST
REVISION: F DATE: 08/12/04
BY: JAD APPROVED:
CHANGE NOTICE NO.
SUPERSEDES:
SUPERSEDED:

BUSINESS CONFIDENTIAL
THE ESAB GROUP L-TEC STEEL INDUSTRY PRODUCTS
WELDING & CUTTING SYSTEMS FLORENCE, SC

TOLERANCES UNLESS OTHERWISE SPECIFIED
INCH DIMENSIONS
FRAC ± 1/16 DEC ± NONE
ANGLE ± 1/2
METRIC DIMENSIONS
0.- mm ± 5.2mm ±

	NAME	DATE
DRAWN	JAD	07/10/15
CHECKED	SAE	
APPROVED	SAE	
HARD COPY:		

ALL SURFACES 125 MICROINCHES
BREAK ALL SHARP EDGES
THIRD ANGLE PROJECTION

TITLE
PANEL, REGULATION, 3 OUTLET, WITH FILTER

D-2224540 REV F

SCALE: NONE SHEET 1 OF 1

CAD DRAWING
REVISIONS BY SIP CAD ONLY

BILL OF MATERIAL

X=ESAB TO SUPPLY ALL PARTS DENOTED BY THE LETTER X AND PRINTS OF ALL REMAINING PARTS. VENDOR TO SUPPLY ALL ITEMS NOT DENOTED BY X.

F=8:PACKED VS UNPACKED
F=9:FINISHED VS UNFINISHED

S=DRWG SIZE:A,B,C,D,E,J,M(BOM)

PNCD=PARTNUMBER CODE
SIP =L-TEC PRODUCT
ESAB=ESAB STD PRODUCT
[ ] =UNDETERMINED

ITEM	XF	S	PART/CODE	QTY	DESCRIPTION	PNCD	REV
1	X8	B	639674	2	VALVE,SHUTOFF	SIP	
2	X8	C	2116734	1	FILTER,OXYGEN,1",50 MICRON,S-5	SIP	
3	X8	B	639717	2	VALVE,CHECK	SIP	
4	X	A	0780-1221	1	REGULATOR,STATION,150 PSI,1/2 NPT,L-700E-500		D
5	X8	A	18Z55	1	CONNECTION,C-SIZE,1/2 MPT,OXY,BRASS	SIP	
6	X8		19137	2	GAUGE,PRESSURE,2-1/2,400 PSI,WHT	SIP	
7	X8		19135	1	GAUGE,PRESSURE,2-1/2,100 PSI,WHT	SIP	D
8	X	C	2120396	1	VALVE,CHECK,SAFETY,BACKPRESSURE,DRY,H-16	SIP	
9	X	A	0780-1199	1	REGULATOR,STATION,75 PSI,1/2 NPT, L-711D-500		D
10	8	A	8693	1	CONNECTION,B-SIZE,1/2 MPT,FG,BRASS (SUPPLIED WITH ITEM 8)	SIP	D
11	X8	A	8696	1	CONNECTION,B-SIZE,1/2 MPT,OXY,BRASS	SIP	
12		B	2116899	1	GASKET,3/4,BRONZE,250#	SIP	E
13	X	A	2226719	1	GASKET,UNION,1/2,125# BRONZE/150# MALL IRON		D
14			65145325	1	UNION,PIPE,SCREW,FEM,GRD JOINT,3/4, 250#,BRONZE	ESAB	E
15			68160105	3	TEE,PIPE,SCREW,3/4, 250#,BRONZE	ESAB	
16			65245050	1	UNION,PIPE,SCREW,FEM,GRD JOINT,1/2,150#,MALL IRON	ESAB	DEF
17				1	BUSHING,PIPE,SCREW,HEX,OUT,3/4 X 1/2,MALL IRON		C
18				1	NIPPLE,PIPE,1/2 X 3 LG,SCH 40,STEEL		DA
19				2	CHANNEL,KINDORF,B-907 (OR EQUIVALENT),24" LONG		D
20			0780-1229	1	REGULATOR,STATION,4-80 PSI,1/2 NPT,L-700C-500		D
21				1	NIPPLE,PIPE,3/4 X 3 LG,SCH 40,RED BRASS		A
22				2	NIPPLE,PIPE,3/4 X 5 LG,SCH 40,RED BRASS		DA
23				1	NIPPLE,PIPE,3/4 X 2 LG,SCH 40,RED BRASS		A
24							D
25							D
26				1	NIPPLE,PIPE,1/2 X 10 LG,SCH 40,STEEL		DA
27							D
28			43500130	1	TEE,PIPE,SCREW,1/2, 150#,MALL IRON	SIP	D
29				1	NIPPLE,PIPE,1/2 X 24 LG,SCH 40,STEEL		DA
30							D
31				2	NIPPLE,PIPE,1/2 X 2 LG,SCH 40,STEEL		D
32				1	NIPPLE,PIPE,3/4 X 6 LG,SCH 40,RED BRASS		D
33			68100280	1	BUSHING,PIPE,SCREW,HEX,OUT,3/4 X 1/2,BRONZE	ESAB	D
34			68100276	1	BUSHING,PIPE,SCREW,HEX,OUT,3/4 X 1/4,BRONZE	ESAB	D
35			43052125	1	BUSHING,PIPE,SCREW,HEX,OUT,1/2 X 1/4,150#,MALL IRON	SIP	C
36			68108100	2	BUSHING,PIPE,SCREW,HEX,OUT,1" X 3/4, BRONZE	ESAB	
37			67100555	1	NIPPLE,PIPE,1/2, SCH 40,RED BRASS,4-1/2 LG	ESAB	D
38			44453000	1	COUPLING,REDUC,PIPE,SCREW,1/2 X 1/4, 250#,BRONZE	SIP	E
39			43250110	2	ELBOW,PIPE,SCREW,90,1/2, 150#,MALL IRON	SIP	D
40							

LISTED	CHECKED	APPROVED
JAD 95/09/27	SAE 97/10/09	SAE 97/10/09

ACTIVITY:

THE ESAB GROUP
WELDING & CUTTING SYSTEMS, FLORENCE, SC

L-TEC
STEEL INDUSTRY PRODUCTS

PANEL, REGULATION, 3 OUTLET, WITH FILTER

CUSTOMER DATA

NAME:
LOCATION:
MACHINE CODE:
NO. REQ'D PER MACH.:
PROJECT NUMBER:

REVISION: LATEST

REVISION: F DATE: 06/12/04
BY: JAD APPROVED: 06/12/04
CHANGE NOTICE NO.:

SUPERSEDED:
SUPERSEDES:

ASSEMBLE PER: C-2224540

REV. F

HARD COPY:

SHEET 1 OF 2

BM - 2224540

NOTES

NOTES

ESAB Welding & Cutting Products, Florence, SC
COMMUNICATION GUIDE - CUSTOMER SERVICES

A. CUSTOMER SERVICE QUESTIONS:
Telephone: (800)362-7080 / Fax: (800) 634-7548 Hours: 8:00 AM to 7:00 PM EST
Order Entry Product Availability Pricing Order Information Returns

B. ENGINEERING SERVICE:
Telephone: (843) 664-4416 / Fax : (800) 446-5693 Hours: 7:30 AM to 5:00 PM EST
Warranty Returns Authorized Repair Stations Welding Equipment Troubleshooting

C. TECHNICAL SERVICE:
Telephone: (800) ESAB-123/ Fax: (843) 664-4452 Hours: 8:00 AM to 5:00 PM EST
Part Numbers Technical Applications Specifications Equipment Recommendations

D. LITERATURE REQUESTS:
Telephone: (843) 664-5562 / Fax: (843) 664-5548 Hours: 7:30 AM to 4:00 PM EST

E. WELDING EQUIPMENT REPAIRS:
Telephone: (843) 664-4487 / Fax: (843) 664-5557 Hours: 7:30 AM to 3:30 PM EST
Repair Estimates Repair Status

F. WELDING EQUIPMENT TRAINING
Telephone: (843)664-4428 / Fax: (843) 679-5864 Hours: 7:30 AM to 4:00 PM EST
Training School Information and Registrations

G. WELDING PROCESS ASSISTANCE:
Telephone: (800) ESAB-123 Hours: 7:30 AM to 4:00 PM EST

H. TECHNICAL ASST. CONSUMABLES:
Telephone : (800) 933-7070 Hours: 7:30 AM to 5:00 PM EST

IF YOU DO NOT KNOW WHOM TO CALL

Telephone: (800) ESAB-123
Fax: (843) 664-4462
Hours: 7:30 AM to 5:00 PM EST
or
visit us on the web at http://www.esabna.com
The ESAB web site offers
Comprehensive Product Information
Material Safety Data Sheets
Warranty Registration
Instruction Literature Download Library
Distributor Locator
Global Company Information
Press Releases
Customer Feedback & Support

ESAB®
ESAB Welding & Cutting Products
PO Box 100545, Florence SC 29501-0545