

INDUSTRIAL



A LINCOLN ELECTRIC COMPANY

Gas Distribution Systems



A LINCOLN ELECTRIC COMPANY



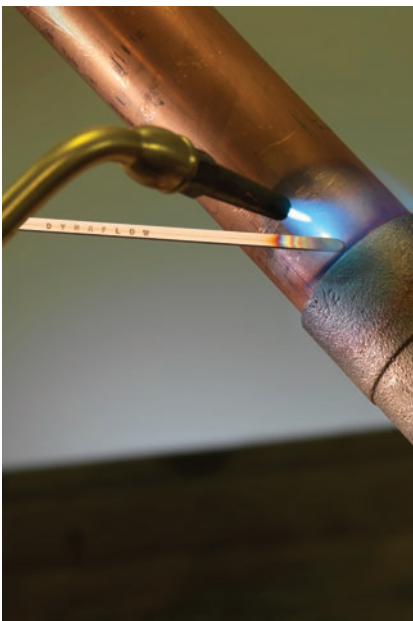
**GAS PRESSURE
& FLOW CONTROL**



CUTTING



HEATING



BRAZING



SOLDERING



WELDING

CONTENTS

The Harris Products Group	4
One-side gas supply manifolds	8
Two-side gas supply manifolds	10
Semi-automatic switchover gas supply manifold	12
Gas supply manifold with an integrated pre-heater	14
Gas supply manifold for an external pre-heater	15
Gas supply manifolds for acetylene	16
Point-of-use systems	20
Point-of-use pressure & flow regulators	22
Extensions	25
Accessories	26
Flashback arrestors	27

THE HARRIS PRODUCTS GROUP



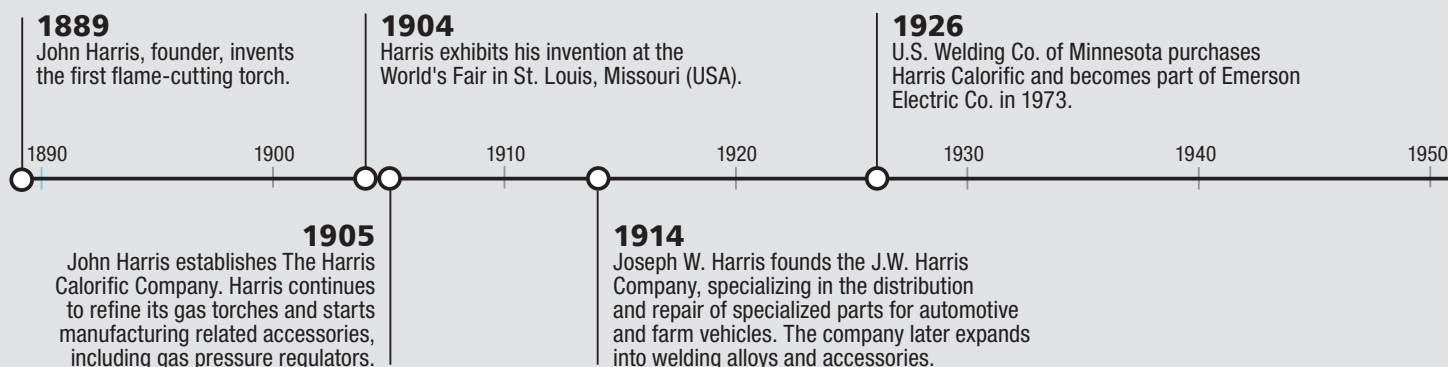
The Harris Products Group was formed by combining two strong names in the welding business - Harris Calorific and J.W. Harris. The Harris Products Group is a world leader in metalworking products used in the brazing, soldering, welding, cutting and gas distribution industries. The combined company offers excellence in the manufacture of:

- Gas welding and cutting equipment
- Industrial and specialty gas regulation equipment
- Gas distribution systems
- Brazing and soldering alloys
- Welding alloys
- Pre-formed bends, rings and return bends



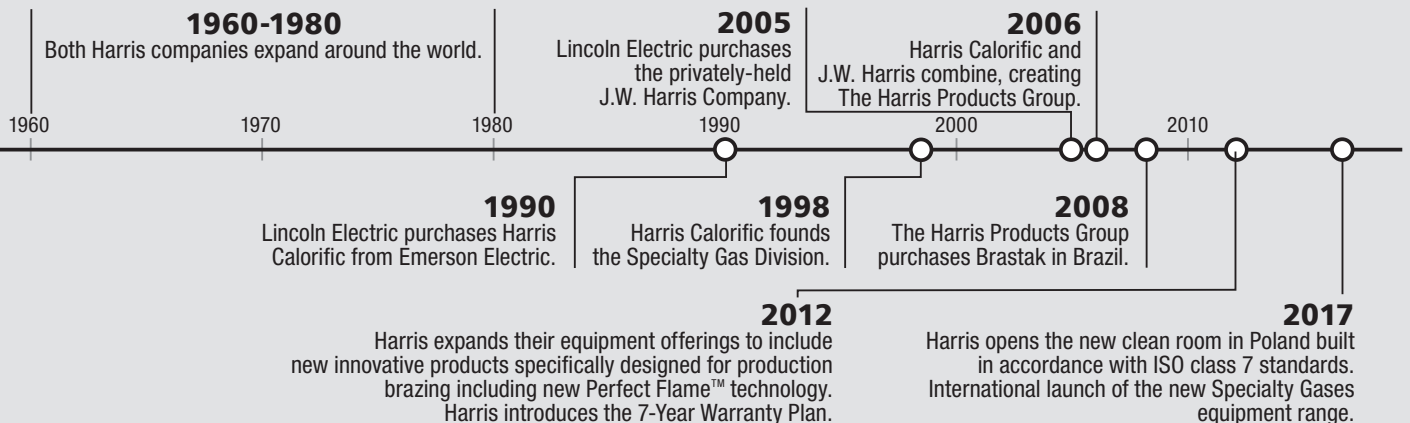
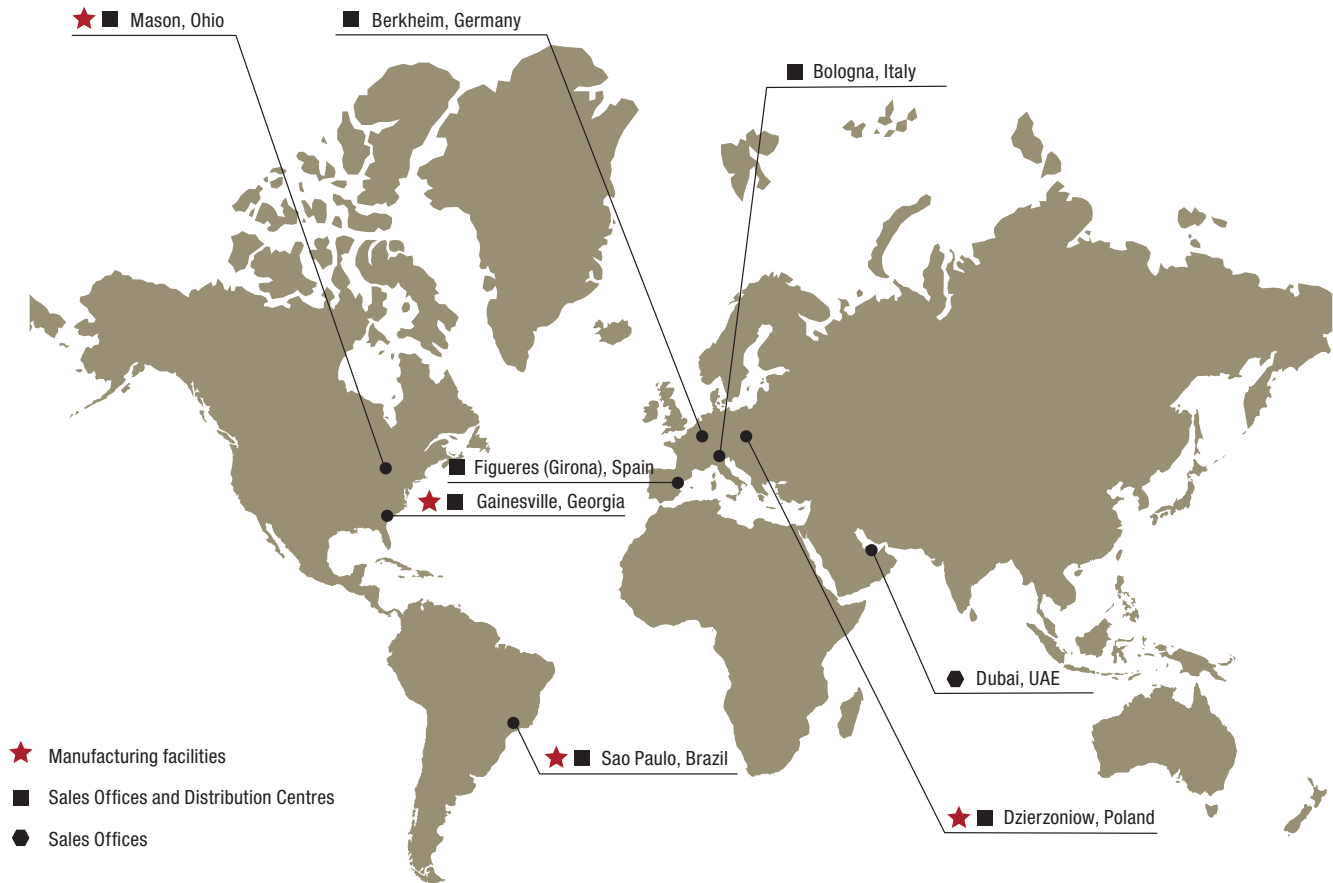
The Harris Products Group is a wholly-owned subsidiary of The Lincoln Electric Company. Lincoln Electric has 63 manufacturing locations, including operations and joint ventures in 23 countries, and a worldwide network of distributors and sales offices reaching over 160 countries.

THE HARRIS PRODUCTS GROUP HISTORY



MANUFACTURING FACILITIES

Based in Mason, Ohio, The Harris Products Group has four manufacturing locations in three countries and a worldwide network of distributors and sales offices covering more than 90 countries.

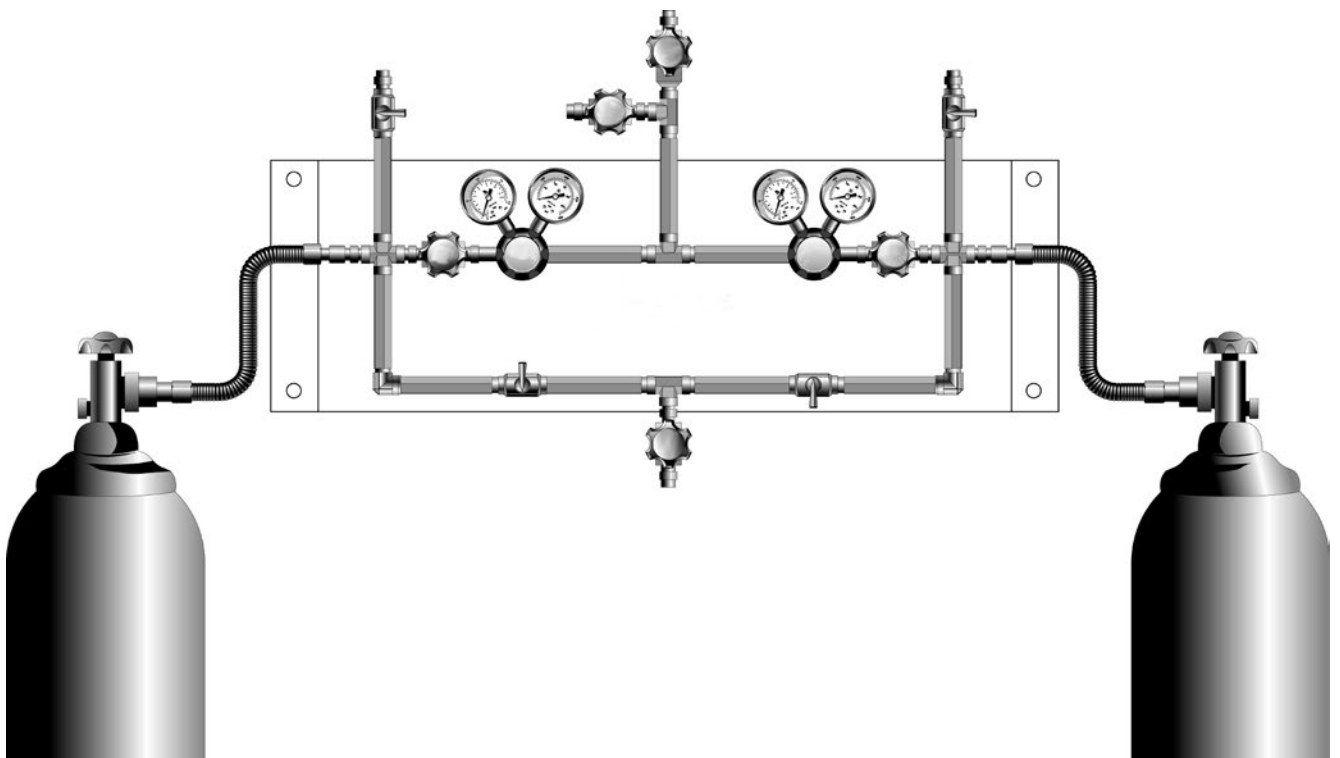


WHEN GASES ARE USED IN SIGNIFICANT VOLUMES, A CENTRALIZED GAS DELIVERY SYSTEM IS A PRACTICAL NECESSITY. A WELL-CONCEIVED DELIVERY SYSTEM WILL REDUCE OPERATING COSTS, INCREASE PRODUCTIVITY AND ENHANCE SAFETY.

A centralized system will allow the consolidation of all cylinders into one storage location. With all the cylinders in one place, inventory control will be streamlined and cylinder handling will be simplified and improved. Gases can be separated by type to enhance safety.

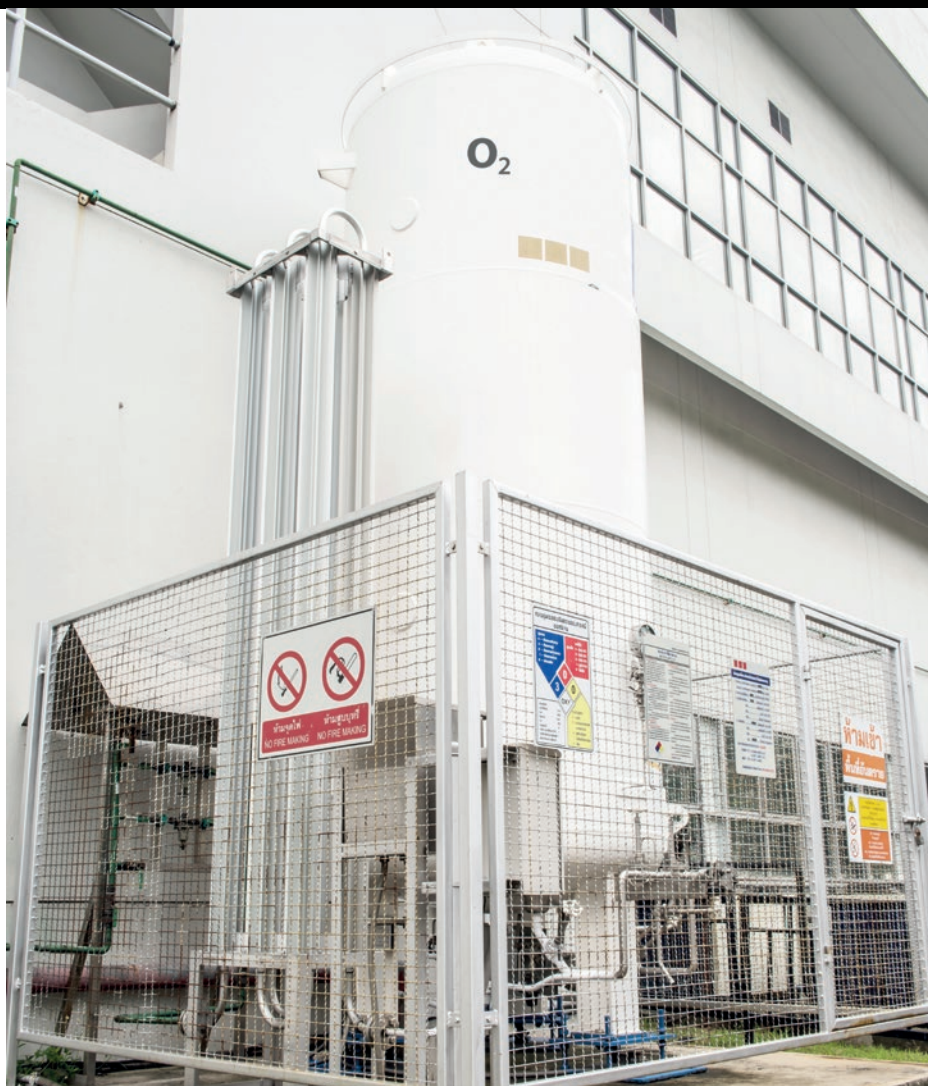
With gas delivery systems the frequency of cylinder changeouts are reduced. This reduction is achieved by connecting multiple cylinders to supply panels in banks in such a way that one bank can be safely vented, replenished and purged while a second bank provides continuous gas service. This type of system can supply gas to multiple applications and even entire facilities, eliminating the need for separate cylinders and regulators for each point of use.

Since cylinder switchover can be accomplished automatically by the supply panel, cylinders in a bank will be uniformly exhausted, resulting in improved gas utilization and lower costs. The integrity of the delivery system will be better protected since cylinder change-outs will be done in an isolated, controlled environment.



GAS CONTROL SYSTEMS

LET THE EXPERTS AT HARRIS SHOW YOU HOW YOU CAN RAISE PRODUCTIVITY, LOWER OPERATIONAL COST, AND IMPROVE THE QUALITY OF YOUR PRODUCTS BY CHOOSING THE RIGHT GASES AND EQUIPMENT FOR YOUR SPECIFIC APPLICATION. WHETHER YOU ARE WORKING WITH OXYGEN, HYDROGEN, NITROGEN, OR ANY OF THE FUEL GASES, HARRIS OFFERS A COMPLETE LINE OF GAS CONTROL SYSTEMS COUPLED WITH EXPERIENCED ENGINEERS AND TECHNICAL SPECIALIST THAT ARE READY TO ASSIST YOU FROM THE GAS SUPPLY TO THE FLAME.



ONE-SIDE GAS SUPPLY MANIFOLDS

GAS SUPPLY MANIFOLDS

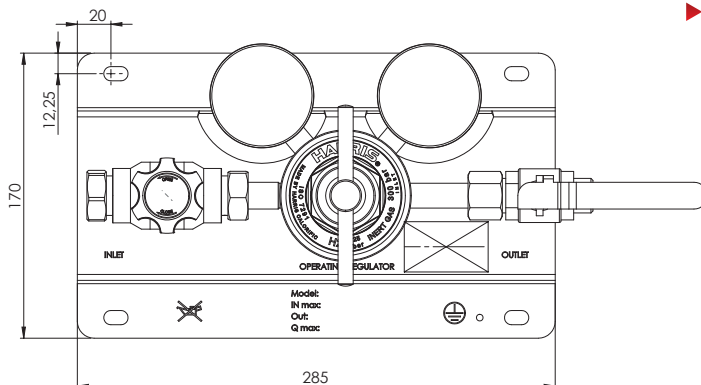
for oxygen and propane, hydrogen, methane and inert gases

One-side manifolds provide continuous gas flow from a single cylinder or bank of cylinders. Designed for applications where a slight rise in delivery pressure from full to empty cylinder can be tolerated or as a first stage of pressure reduction. Manual adjustment of the regulator allows the user to set downstream pressure. It features modular shut-off diaphragm valve with one inlet for a cylinder / bank of cylinders (1x1) or two inlets to connect one more gas source (1x2).

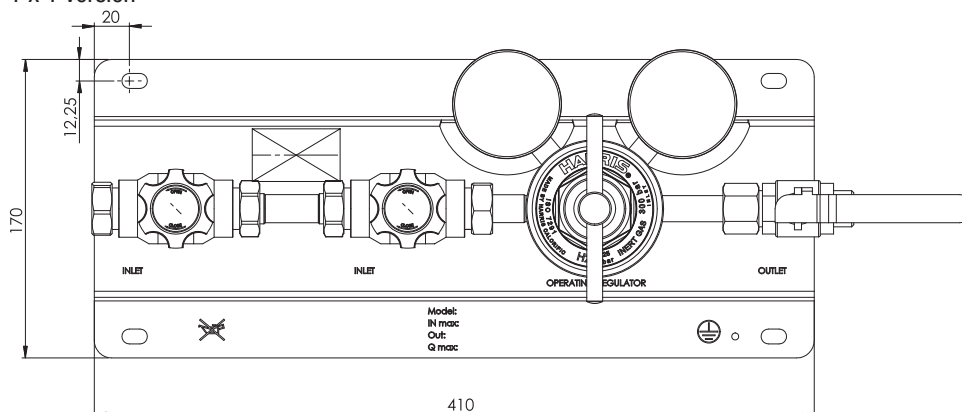


FEATURES:

- ▶ Model H25 regulator:
 - designed according to ISO 7291 standard
 - stainless steel diaphragm
 - high pressure capsule seat with Kel-F (CTFE) sealing surface
 - sintered bronze filter - 25 micron
 - stainless steel T-screw handle
 - internal safety relief valve
 - 7 year warranty
- ▶ Up to 300 bar inlet pressure
- ▶ 100% tested at nominal pressure
- ▶ Compact design
- ▶ “Plug and go” - delivered ready to use
- ▶ Easy to extend – just add modular extensions
- ▶ Main ball shut-off valve ½”
- ▶ All modular components fully tested for stability, functionality and gas tightness
- ▶ Quickly and easily replaceable pressure gauges
- ▶ Modular header valve with purge and non-return valve as an option
- ▶ Mounted on an electro and laser engraved stainless steel plate
- ▶ Working temperature from - 20°C to + 60°C
- ▶ Inlet 1/4” NPT F
- ▶ Outlet G1/2”
- ▶ Weight: one inlet 3,6 kg, two inlets 4 kg



1 x 1 version



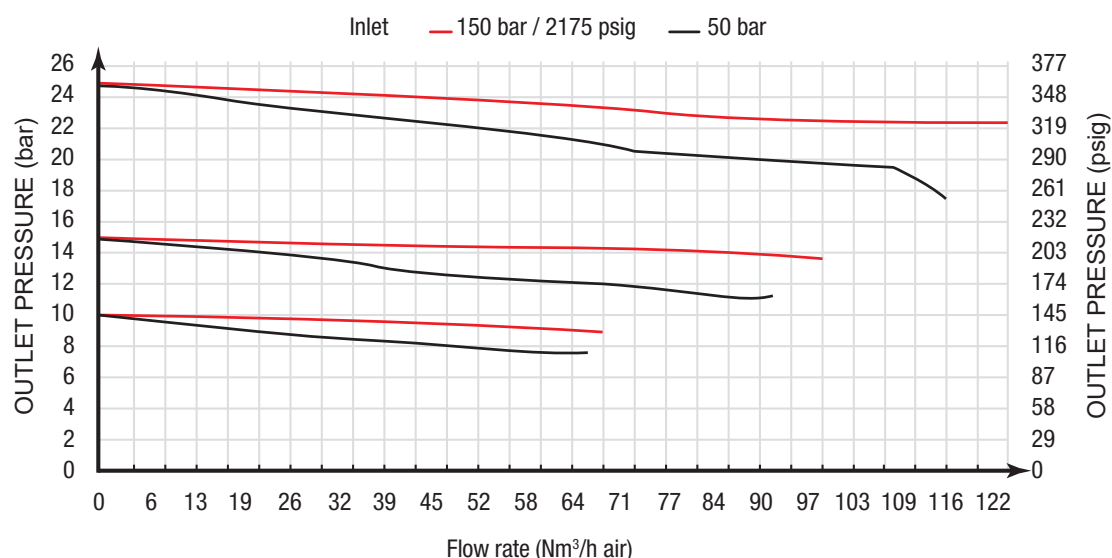
1 x 2 version

RELATED OPTIONS:

- ▶ Extensions
- ▶ Inlet non return valve
- ▶ Purge valve

REGULATOR MATERIALS

Body	Brass
Diaphragm	Stainless steel type AISI 302
Filter	Sintered bronze – 25 micron
Seat	Nylon-66
O-ring	Buna-N



PART NO.	MODEL	NO. SIDES X NO. CYLINDERS	GAS	MAX INLET PRESSURE (bar)	MAX OUTLET PRESSURE (bar)	INLET PRESSURE GAUGE (bar)	OUTLET PRESSURE GAUGE (bar)
4708014	IMS4LP1x1	1 x 1	Propane	25	4	0 - 40	0 - 6
4708020	IMS15IG1X1	1 x 1	Inert	300	15	0 - 400	0 - 25
4708021	IMS15H1X1	1 x 1	Hydrogen	300	15	0 - 400	0 - 25
4708022	IMS15OX1X1	1 x 1	Oxygen	300	15	0 - 400	0 - 25
4708004	IMS25IG1x1	1 x 1	Inert	300	25	0 - 400	0 - 40
4708023	IMS25H1X1	1 x 1	Hydrogen	300	25	0 - 400	0 - 40
4708000	IMS25OX1x1	1 x 1	Oxygen	300	25	0 - 400	0 - 40
4708024	IMS40IG1X1	1 x 1	Inert	300	40	0 - 400	0 - 60
4708025	IMS40H1X1	1 x 1	Hydrogen	300	40	0 - 400	0 - 60
4708026	IMS40OX1X1	1 x 1	Oxygen	300	40	0 - 400	0 - 60
4708015	IMS4LP1x2	1 x 2	Propane	25	4	0 - 40	0 - 6
4708027	IMS15IG1X2	1 x 2	Inert	300	15	0 - 400	0 - 25
4708028	IMS15H1X2	1 x 2	Hydrogen	300	15	0 - 400	0 - 25
4708029	IMS15OX1X2	1 x 2	Oxygen	300	15	0 - 400	0 - 25
4708005	IMS25IG1x2	1 x 2	Inert	300	25	0 - 400	0 - 40
4708030	IMS25H1X2	1 x 2	Hydrogen	300	25	0 - 400	0 - 40
4708001	IMS25OX1x2	1 x 2	Oxygen	300	25	0 - 400	0 - 40
4708031	IMS40IG1X2	1 x 2	Inert	300	40	0 - 400	0 - 60
4708032	IMS40H1X2	1 x 2	Hydrogen	300	40	0 - 400	0 - 60
4708033	IMS40OX1X2	1 x 2	Oxygen	300	40	0 - 400	0 - 60

Manifolds are available for other gases and pressures also. Please contact us.

TWO-SIDE GAS SUPPLY MANIFOLDS

TWO-SIDE GAS SUPPLY MANIFOLDS for oxygen and propane, hydrogen, methane and inert gases

Two-side manifolds provide continuous gas flow from a single cylinder or bank of cylinders. Designed for applications where a slight rise in delivery pressure from full to empty cylinder can be tolerated or as a first stage of pressure reduction. Manual adjustment of the regulator allows the user to set downstream pressure. It features modular shut-off diaphragm valve with one inlet on both sides for a cylinder / bank of cylinders (2x1) or two inlets on both sides to connect four gas sources (2x2). Both sides can be used at the same time or a manual switchover is possible.

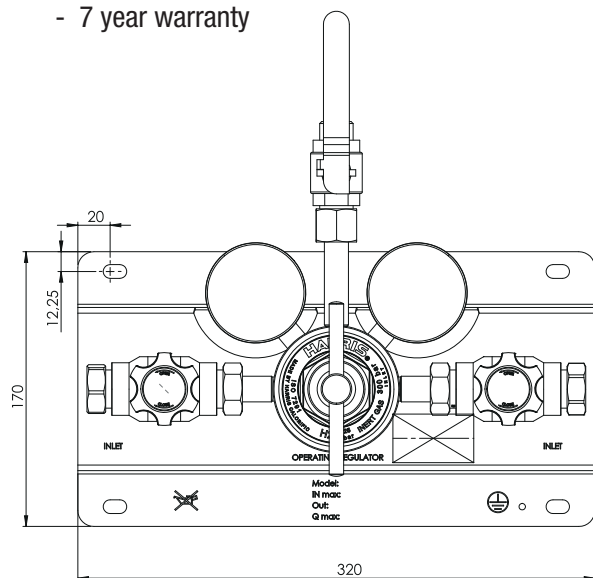


FEATURES:

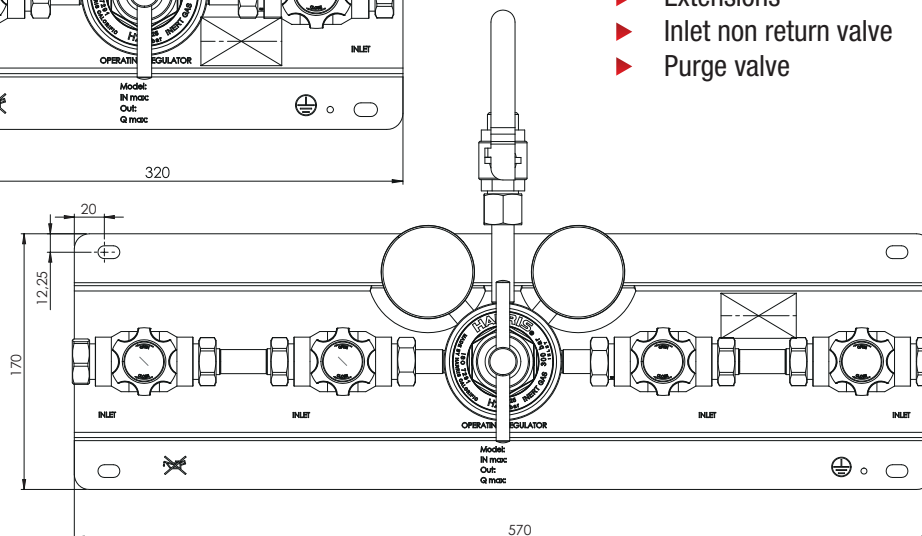
- ▶ Model H25 regulator:
 - designed according to ISO 7291 standard
 - stainless steel diaphragm
 - high pressure capsule seat with Kel-F (CTFE) sealing surface
 - sintered bronze filter - 25 micron
 - stainless steel T-screw handle
 - internal safety relief valve
 - 7 year warranty
- ▶ Up to 300 bar inlet pressure
- ▶ 100% tested at nominal pressure
- ▶ Compact design
- ▶ "Plug and go" - delivered ready to use
- ▶ Easy to extend – just add modular extensions
- ▶ Main ball shut-off valve 1/2"
- ▶ All modular components fully tested for stability, functionality and gas tightness
- ▶ Quickly and easily replaceable pressure gauges
- ▶ Modular header valve with purge and non-return valve as an option
- ▶ Mounted on an electro and laser engraved stainless steel plate
- ▶ Working temperature from - 20°C to + 60°C
- ▶ Inlet 1/4" NPT F
- ▶ Outlet G1/2"
- ▶ Weight: one inlet 4,1 kg, two inlets 4,7 kg

RELATED OPTIONS:

- ▶ Extensions
- ▶ Inlet non return valve
- ▶ Purge valve



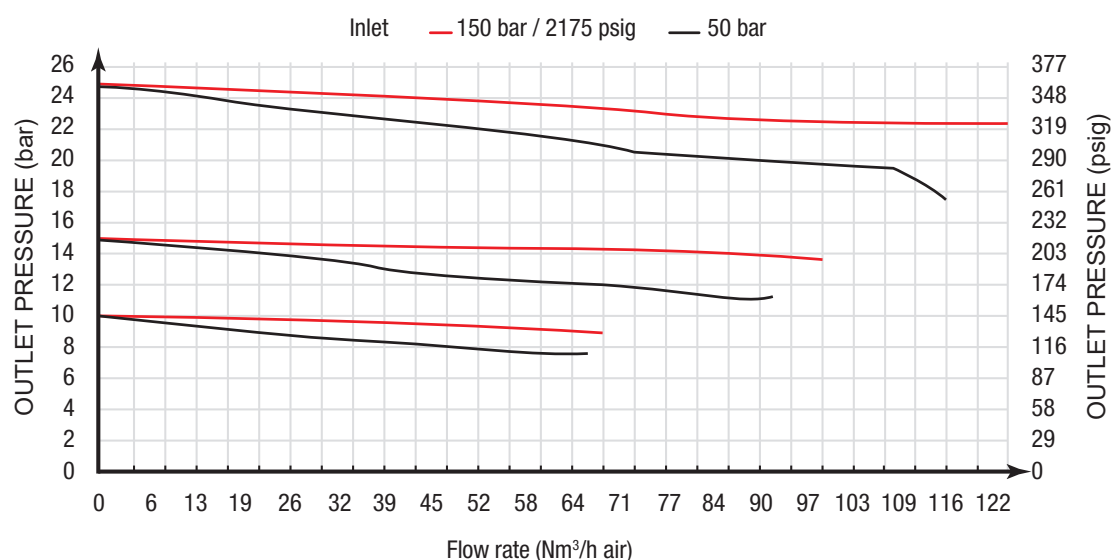
2 x 1 version



2 x 2 version

REGULATOR MATERIALS

Body	Brass
Diaphragm	Stainless steel type AISI 302
Filter	Sintered bronze – 25 micron
Seat	Nylon-66
O-ring	Buna-N



PART NO.	MODEL	NO. SIDES X NO. CYLINDERS	GAS	MAX INLET PRESSURE (bar)	MAX OUTLET PRESSURE (bar)	INLET PRESSURE GAUGE (bar)	OUTLET PRESSURE GAUGE (bar)
4708016	IMS4LP2x1	2 x 1	Propane	25	4	0 - 40	0 - 6
4708034	IMS15IG2X1	2 x 1	Inert	300	15	0 - 400	0 - 25
4708035	IMS15H2X1	2 x 1	Hydrogen	300	15	0 - 400	0 - 25
4708036	IMS15OX2X1	2 x 1	Oxygen	300	15	0 - 400	0 - 25
4708006	IMS25IG2x1	2 x 1	Inert	300	25	0 - 400	0 - 40
4708037	IMS25H2X1	2 x 1	Hydrogen	300	25	0 - 400	0 - 40
4708002	IMS25OX2x1	2 x 1	Oxygen	300	25	0 - 400	0 - 40
4708038	IMS40IG2X1	2 x 1	Inert	300	40	0 - 400	0 - 60
4708039	IMS40H2X1	2 x 1	Hydrogen	300	40	0 - 400	0 - 60
4708040	IMS40OX2X1	2 x 1	Oxygen	300	40	0 - 400	0 - 60
4708017	IMS4LP2x2	2 x 2	Propane	25	4	0 - 40	0 - 6
4708041	IMS15IG2X2	2 x 2	Inert	300	15	0 - 400	0 - 25
4708042	IMS15H2X2	2 x 2	Hydrogen	300	15	0 - 400	0 - 25
4708043	IMS15OX2X2	2 x 2	Oxygen	300	15	0 - 400	0 - 25
4708007	IMS25IG2x2	2 x 2	Inert	300	25	0 - 400	0 - 40
4708044	IMS25H2X2	2 x 2	Hydrogen	300	25	0 - 400	0 - 40
4708003	IMS25OX2x2	2 x 2	Oxygen	300	25	0 - 400	0 - 40
4708045	IMS40IG2X2	2 x 2	Inert	300	40	0 - 400	0 - 60
4708046	IMS40H2X2	2 x 2	Hydrogen	300	40	0 - 400	0 - 60
4708047	IMS40OX2X2	2 x 2	Oxygen	300	40	0 - 400	0 - 60

Manifolds are available for other gases and pressures also. Please contact us.

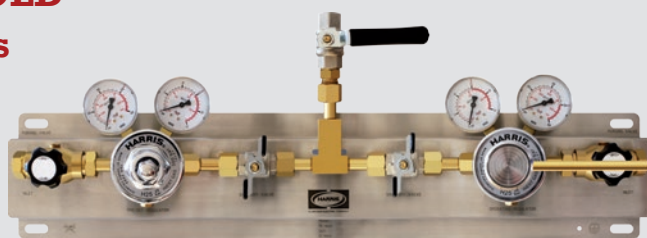
SWITCHOVER GAS SUPPLY MANIFOLD

SWITCHOVER GAS SUPPLY MANIFOLD

for oxygen, hydrogen and inert gases

Semi-automatic switchover manifolds prevent downtime by automatically switching gas supply from the primary cylinder bank to the reserve cylinder. The user resets the primary bank by turning the knob. Designed for applications where continuous flow of a gas is critical and pressure differential of outlet pressure is tolerated or as a first stage of pressure reduction.

It features modular shut-off diaphragm valve with one inlet on both sides for a cylinder / bank of cylinders and shut-off ball valve on low pressure side to allow maintenance without shutdown.

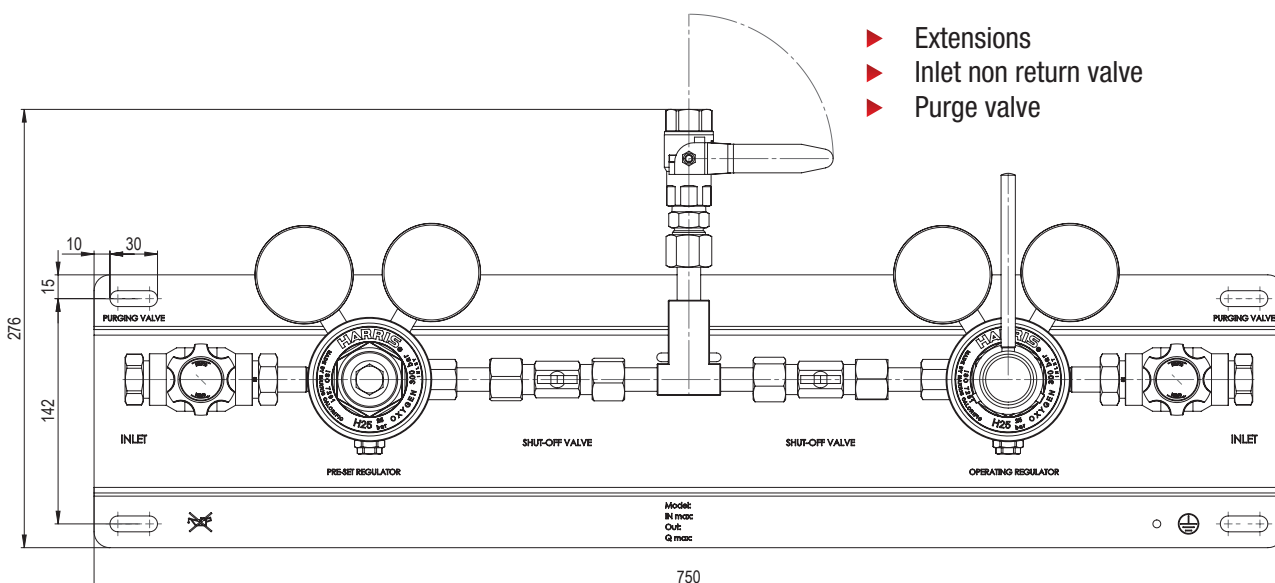


FEATURES:

- ▶ Model H25 regulator:
 - designed according to ISO 7291 standard
 - stainless steel diaphragm
 - high pressure capsule seat with Kel-F (CTFE) sealing surface
 - sintered bronze filter - 25 micron
 - stainless steel T-screw handle
 - internal safety relief valve
 - factory pre-set outlet pressure
 - 7 year warranty
- ▶ Up to 300 bar inlet pressure
- ▶ 100% tested at nominal pressure
- ▶ Compact design
- ▶ "Plug and go" - delivered ready to use
- ▶ Easy to extend – just add modular extensions
- ▶ Main ball shut-off valve ½"
- ▶ All modular components fully tested for stability, functionality and gas tightness
- ▶ Quickly and easily replaceable pressure gauges
- ▶ Modular header valve with purge and non-return valve as an option
- ▶ Mounted on an electro and laser engraved stainless steel plate
- ▶ Working temperature from - 20°C to + 60°C
- ▶ Inlet 1/4" NPT F
- ▶ Outlet G1/2"
- ▶ Weight: one inlet 7,6 kg

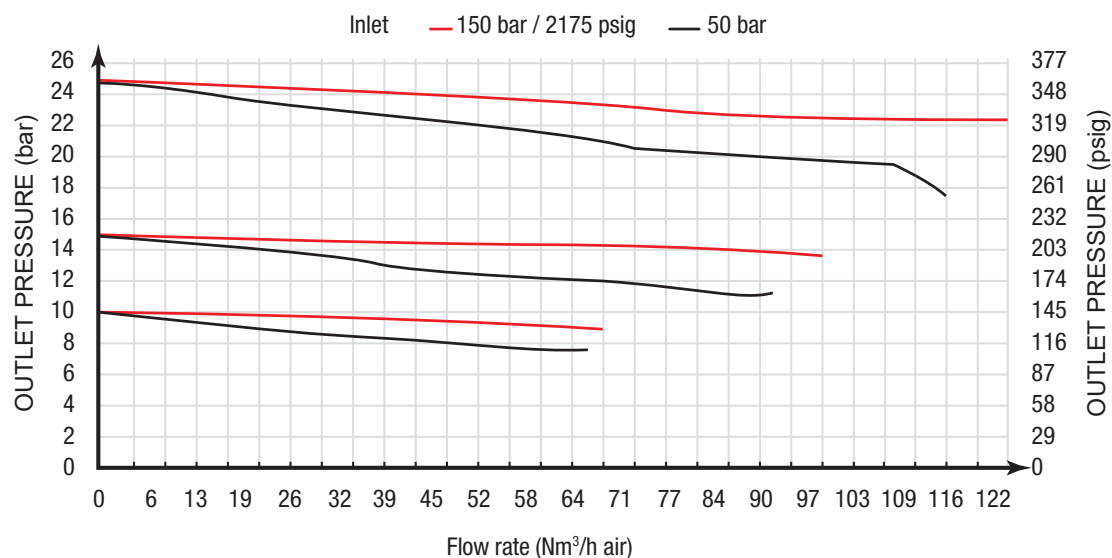
RELATED OPTIONS:

- ▶ Extensions
- ▶ Inlet non return valve
- ▶ Purge valve



REGULATOR MATERIALS

Body	Brass
Diaphragm	Stainless steel type AISI 302
Filter	Sintered bronze – 25 micron
Seat	Nylon-66
O-ring	Buna-N



PART NO.	MODEL	NO. SIDES X NO. CYLINDERS	GAS	MAX INLET PRESSURE (bar)	MAX OUTLET PRESSURE (bar)	INLET PRESSURE GAUGE (bar)	OUTLET PRESSURE GAUGE (bar)
4708019	IMSSA15IG2X1	2 x 1	Inert	300	15	0 - 400	0 - 25
4708048	IMSSA15OX2X1	2 x 1	Oxygen	300	15	0 - 400	0 - 25
4708049	IMSSA25IG2X1	2 x 1	Inert	300	25	0 - 400	0 - 40
4708050	IMSSA25OX2X1	2 x 1	Oxygen	300	25	0 - 400	0 - 40

Two-stage version upon request.

Manifolds are available for other gases and pressures also. Please contact us.

GAS SUPPLY MANIFOLD WITH AN INTEGRATED PRE-HEATER

GAS SUPPLY MANIFOLD

designed to prevent the freezing up of the gas installation

This one-side gas supply manifold provides continuous gas flow from a single cylinder or bank of cylinders. It features an integrated pre-heater, which prevents the freezing up of the regulator. Designed for applications where a slight rise in delivery pressure from full to empty cylinder can be tolerated or as a first stage of pressure reduction.



Manual adjustment of the regulator allows the user to set downstream pressure. It features two modular shut-off diaphragm valves with an inlet for a cylinder / bank of cylinders and 500 W pre-heater for all gases needed to warm-up (corrosive and flammable gases excluded).

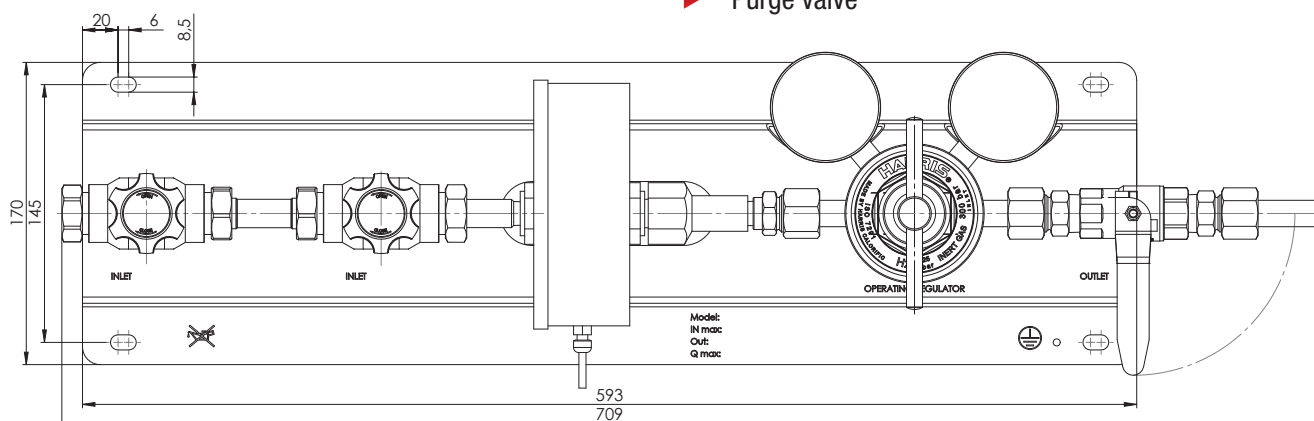
FEATURES:

- ▶ Model H25 regulator:
 - designed according to ISO 7291 standard
 - stainless steel diaphragm
 - high pressure capsule seat with Kel-F (CTFE) sealing surface
 - sintered bronze filter - 25 micron
 - stainless steel T-screw handle
 - internal safety relief valve
 - 7 year warranty
- ▶ Pre-heater:
 - model 500 W
 - for all gases needed to warm up (e.g. CO₂, O₂, mix argon / CO₂, N₂O)
 - do not recommended for corrosive and flammable gases
 - stabilized temperature up to 15 m³/h continuous CO₂ flow
 - insulation IP 64 (EN 60529)
 - voltage: 230 V
 - 1 meters long power cable without plug

- ▶ Up to 300 bar inlet pressure
- ▶ 100% tested at nominal pressure
- ▶ Compact design "Plug and go" - delivered ready to use
- ▶ Easy to extend – just add modular extensions
- ▶ Main ball shut-off valve ½"
- ▶ All modular components fully tested for stability, functionality and gas tightness
- ▶ Quickly and easily replaceable pressure gauges
- ▶ Modular header valve with purge and non-return valve as an option
- ▶ Mounted on an electro and laser engraved stainless steel plate
- ▶ Working temperature from - 20°C to + 60°C
- ▶ Inlet 1/4" NPT F, outlet G1/2"
- ▶ Weight: 7,15 kg

RELATED OPTIONS:

- ▶ Extensions
- ▶ Inlet non return valve
- ▶ Purge valve



REGULATOR MATERIALS

Body	Brass
Diaphragm	Stainless steel type AISI 302
Filter	Sintered bronze – 25 micron
Seat	Nylon-66
O-ring	Buna-N

PART NO.	MODEL	NO. SIDES X NO. CYLINDERS	GAS	MAX INLET PRESSURE (bar)	MAX OUTLET PRESSURE (bar)	INLET PRESSURE GAUGE (bar)	OUTLET PRESSURE GAUGE (bar)
4708053	IMS15IG1x2PH500	1 x 2	CO ₂	300	15	0 - 400	0 - 25

Manifolds are available for other gases and pressures also. Please contact us.

GAS SUPPLY MANIFOLD FOR AN EXTERNAL PRE-HEATER

GAS SUPPLY MANIFOLD

designed to prevent the freezing up of the gas installation

This one-side gas supply manifold provides continuous gas flow from a single cylinder or bank of cylinders. Its construction allows to connect the external pre-heater of your choice. Designed for applications where a slight rise in delivery pressure from full to empty cylinder can



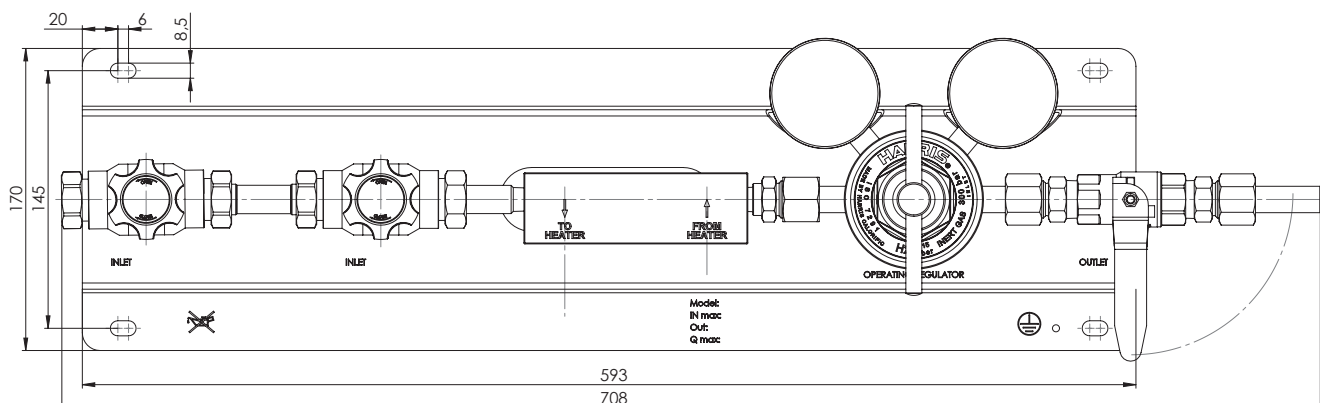
be tolerated or as a first stage of pressure reduction. Manual adjustment of the regulator allows the user to set downstream pressure. It features two modular shut-off diaphragm valves with an inlet for a cylinder / bank of cylinders and connection to the external pre-heater.

FEATURES:

- ▶ Model H25 regulator:
 - designed according to ISO 7291 standard
 - stainless steel diaphragm
 - high pressure capsule seat with Kel-F (CTFE) sealing surface
 - sintered bronze filter - 25 micron
 - stainless steel T-screw handle
 - internal safety relief valve
 - 7 year warranty
- ▶ Up to 300 bar inlet pressure
- ▶ 100% tested at nominal pressure
- ▶ Compact design "Plug and go" - delivered ready to use
- ▶ Easy to extend – just add modular extensions
- ▶ Main ball shut-off valve ½"
- ▶ All modular components fully tested for stability, functionality and gas tightness
- ▶ Quickly and easily replaceable pressure gauges
- ▶ Modular header valve with purge and non-return valve as an option
- ▶ Mounted on an electro and laser engraved stainless steel plate
- ▶ Working temperature from - 20°C to + 60°C
- ▶ Inlet 1/4" NPT F, outlet G1/2"
- ▶ Weight: 6,2 kg

RELATED OPTIONS:

- ▶ Extensions
- ▶ Inlet non return valve
- ▶ Purge valve



REGULATOR MATERIALS

Body	Brass
Diaphragm	Stainless steel type AISI 302
Filter	Sintered bronze – 25 micron
Seat	Nylon-66
O-ring	Buna-N

PART NO.	MODEL	NO. SIDES X NO. CYLINDERS	GAS	MAX INLET PRESSURE (bar)	MAX OUTLET PRESSURE (bar)	INLET PRESSURE GAUGE (bar)	OUTLET PRESSURE GAUGE (bar)
4708052	IMS15IG1X2EXTPH	1 x 2	CO ₂	300	15	0 - 400	0 - 25

Manifolds are available for other gases and pressures also. Please contact us.

ACETYLENE MANIFOLDS

GAS SUPPLY MANIFOLDS

designed for acetylene

This special line of industrial manifolds is dedicated to provide continuous acetylene flow from a single cylinder or bank of cylinders. Designed for applications where a slight rise in delivery pressure from full to empty cylinder can be tolerated or as a first stage of pressure reduction. Manual adjustment of the regulator allows the user to set downstream pressure.

The acetylene manifolds are design according to ISO 14114 standard and feature inlet high pressure ball valve for acetylene, an automatic quick-action shut-off unit (both according to EN ISO 15615), one flashback arrestor (according to DIN EN ISO 5175-1) and a pressure regulator model H25 (compliant with ISO 7191). They are equipped with a diaphragm shut-off valve for each inlet port (one for each cylinder to be connected).

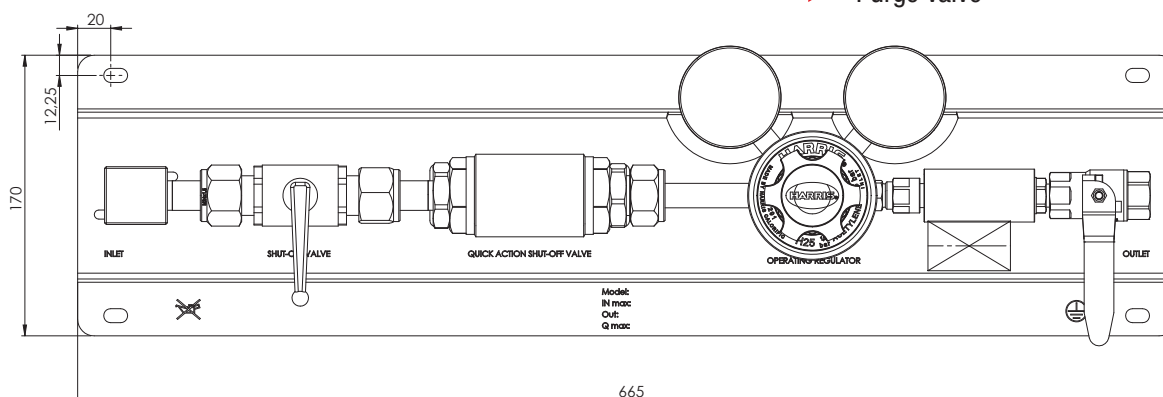


FEATURES:

- ▶ Model H25 regulator:
 - designed according to ISO 7291 standard
 - stainless steel diaphragm
 - high pressure capsule seat with Kel-F (CTFE) sealing surface
 - sintered bronze filter - 25 micron
 - internal safety relief valve
 - 7 year warranty
- ▶ Automatic quick-action shut-off
- ▶ Flashback arrestor
- ▶ Up to 25 bar inlet pressure
- ▶ 100% tested at nominal pressure
- ▶ Compact design
- ▶ “Plug and go” - delivered ready to use
- ▶ Easy to extend – just add modular extensions
- ▶ Main ball shut-off valve ½”
- ▶ All modular components fully tested for stability, functionality and gas tightness
- ▶ Quickly and easily replaceable pressure gauges
- ▶ Modular header valve with purge and non-return valve as an option
- ▶ Mounted on an electro and laser engraved stainless steel plate
- ▶ Working temperature from - 20°C to + 60°C
- ▶ Inlet 1/4” NPT F
- ▶ Outlet G1/2”
- ▶ Weight: one inlet 8 kg, two inlets 12 kg

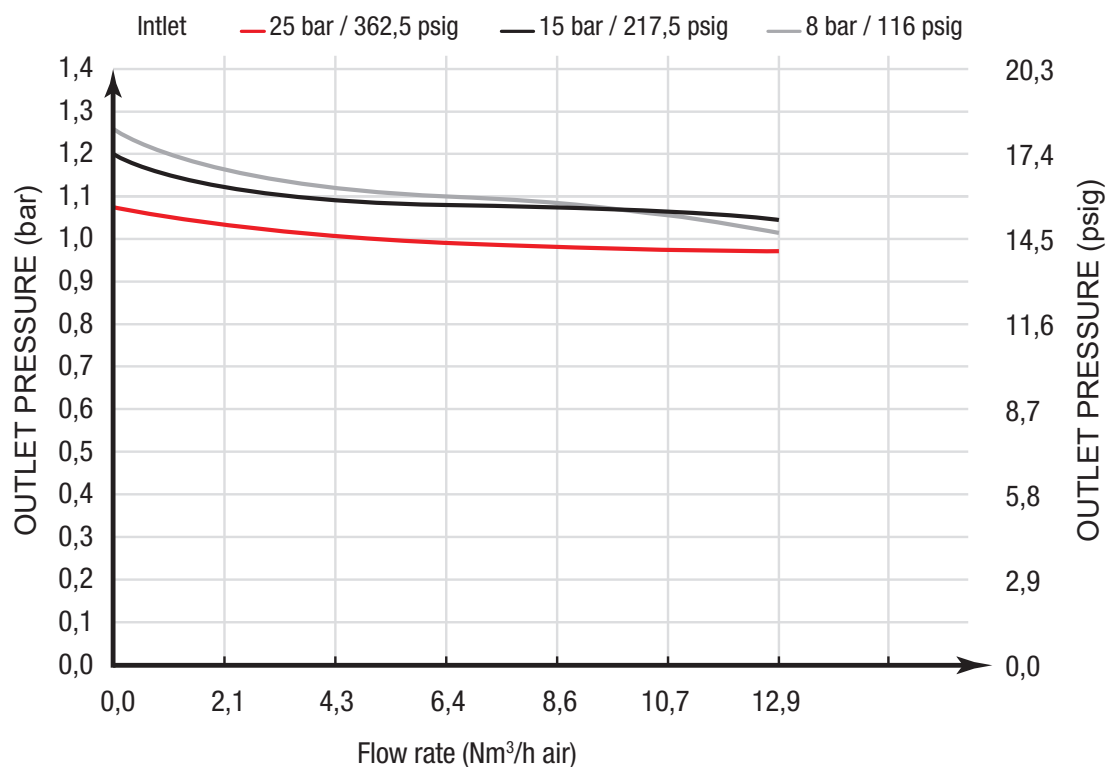
RELATED OPTIONS:

- ▶ Extensions
- ▶ Inlet non return valve
- ▶ Purge valve



REGULATOR MATERIALS

Body	Brass
Diaphragm	Stainless steel type AISI 302
Filter	Sintered bronze – 25 micron
Seat	Nylon-66
O-ring	Buna-N



PART NO.	DESCRIPTION	GAS	MAX INLET PRESSURE (bar)	MAX OUTLET PRESSURE (bar)	FLOW (Nm³/h) @ MAX OUTLET PRESSURE	INLET PRESSURE GAUGE (bar)	OUTLET PRESSURE GAUGE (bar)
4708008	IMS1, 5AC1X1	Acetylene	25	1,5	10	0 - 40	0 - 2,5
4708009	IMS1, 5AC1X2	Acetylene	25	1,5	10	0 - 40	0 - 2,5
4708010	IMS1, 5AC2X1	Acetylene	25	1,5	10	0 - 40	0 - 2,5
4708011	IMS1, 5AC2X2	Acetylene	25	1,5	10	0 - 40	0 - 2,5

ACETYLENE MANIFOLDS

HIGH FLOW GAS SUPPLY MANIFOLDS designed for acetylene

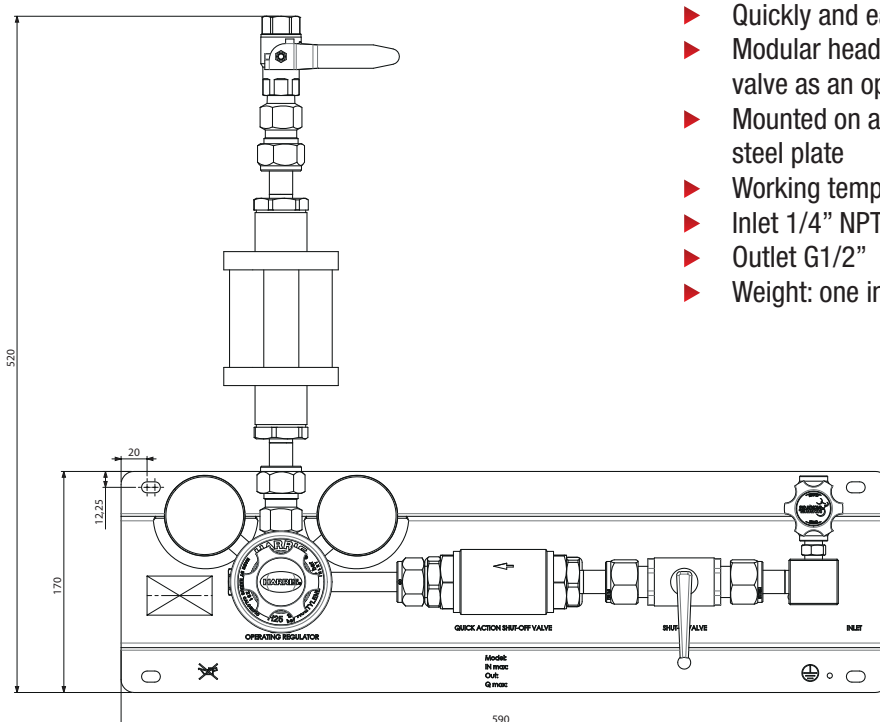
This special line of industrial manifolds is dedicated to provide continuous acetylene flow from a single cylinder or bank of cylinders. Designed for applications where a slight rise in delivery pressure from full to empty cylinder can be tolerated or as a first stage of pressure reduction. Manual adjustment of the regulator allows the user to set downstream pressure.

The high flow acetylene manifolds are design according to ISO 14114 standard and feature inlet high pressure ball valve for acetylene, an automatic quick-action shut-off unit (both according to EN ISO 15615), one flashback arrestor (according to DIN EN ISO 5175-1) and a pipeline regulator model H25 (compliant with ISO 7191). They are equipped with a diaphragm shut-off valve for each inlet port (one for each cylinder to be connected).



FEATURES:

- ▶ Model H25 regulator:
 - designed according to ISO 7291 standard
 - stainless steel diaphragm
 - high pressure capsule seat with Kel-F (CTFE) sealing surface
 - sintered bronze filter - 25 micron
 - stainless steel T-screw handle
 - internal safety relief valve
 - 7 year warranty
- ▶ Maximum gas flow 28,5 Nm³/h
- ▶ Automatic quick-action shut-off
- ▶ Flashback arrestor
- ▶ Up to 25 bar inlet pressure
- ▶ 100% tested at nominal pressure
- ▶ Compact design
- ▶ "Plug and go" – delivered ready to use
- ▶ Easy to extend – just add modular extensions
- ▶ Main ball shut-off valve ½"
- ▶ All modular components fully tested for stability, functionality and gas tightness
- ▶ Quickly and easily replaceable pressure gauges
- ▶ Modular header valve with purge and non-return valve as an option
- ▶ Mounted on an electro and laser engraved stainless steel plate
- ▶ Working temperature from - 20°C to + 60°C
- ▶ Inlet 1/4" NPT F
- ▶ Outlet G1/2"
- ▶ Weight: one inlet 8 kg, two inlets 12 kg

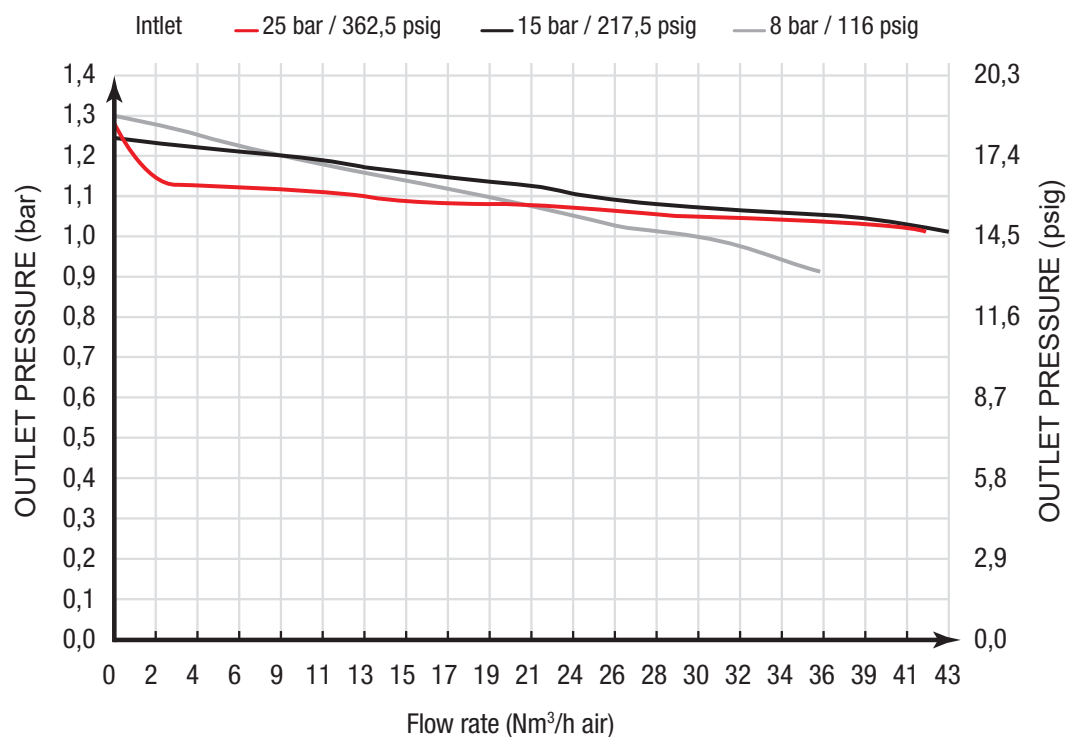


RELATED OPTIONS:

- ▶ Extensions
- ▶ Inlet non return valve
- ▶ Purge valve

REGULATOR MATERIALS

Body	Brass
Diaphragm	Stainless steel type AISI 302
Filter	Sintered bronze – 25 micron
Seat	Nylon-66
O-ring	Buna-N



PART NO.	DESCRIPTION	GAS	MAX INLET PRESSURE (bar)	MAX OUTLET PRESSURE (bar)	FLOW (Nm³/h) @ MAX OUTLET PRESSURE	INLET PRESSURE GAUGE (bar)	OUTLET PRESSURE GAUGE (bar)
4708012	IMS1, 5AC1X1 HF	Acetylene	25	1,5	28,5	0 - 40	0 - 2,5
4708013	IMS1, 5AC2X1 HF	Acetylene	25	1,5	28,5	0 - 40	0 - 2,5

POINT-OF-USE

HARRIS POINT-OF-USE FEATURES:

- ▶ Compact design
- ▶ High operational reliability
- ▶ Designed for acetylene, oxygen and highly compressed non-corrosive gases
- ▶ Operating pressure: acetylene up to 2,5 bar; all other gases up to 60 bar
- ▶ Sintered filter at the inlet valve traps impurities and prevents penetration by dirt particles
- ▶ 7 year warranty for regulators

NOMINAL GAS FLOW:

- ▶ Acetylene up to 15 Nm³/h
- ▶ Propane up to 10 Nm³/h
- ▶ Oxygen up to 200 Nm³/h

COMPONENTS:

- ▶ Connection body, ball valve, brazed nipple and union nut can be assembled corresponding to the type of gas.

ONE STATION POINT-OF-USE

MODEL SHOWN:
EST0102

FEATURES:

- ▶ Ball valve
- ▶ Brazed connection
- ▶ Connection thread 3/8" (F)
- ▶ Bracket and 1 pressure regulator included



PART NO.	GAS TYPE	MAX. WORKING PRESSURE / FLOW	PIPELINE CONNECTION	REGULATOR
EST0101	Acetylene	1,5 bar	Ø 12 mm	846AC
EST0102	Oxygen	10 bar	Ø 12 mm	8460X
EST0103	Oxygen	4 bar	Ø 12 mm	8460X-4
EST0104	Propane	4 bar	Ø 12 mm	846PR
EST0105	Argon/CO ₂	30 lpm	Ø 12 mm	846-30LM
EST0106	Argon/CO ₂	30 lpm	Ø 12 mm	846-30FLAR
EST0107	Argon/CO ₂	30 lpm	Ø 12 mm	353-30FLAR
EST0108	Argon/CO ₂	30 lpm	Ø 12 mm	653-30FLAR
EST0109	Argon/CO ₂	30 lpm	Ø 12 mm	653-30FLAR-LOCK
EST01010	Forming gas	30 lpm	Ø 12 mm	846-30LM-FG

Other options upon request.

TWO STATIONS POINT-OF-USE

MODEL SHOWN:
EST0201

FEATURES:

- ▶ Ball valve
- ▶ Brazed or welded nipple
- ▶ Connection thread 3/8" (F)
- ▶ Bracket and 2 pressure regulators included



PART NO.	GAS TYPE	PIPELINE CONNECTION	REGULATOR
EST0201	Oxygen - Acetylene	Ø 12 mm	846AC, 8460X
EST0202	Oxygen - Acetylene	Ø 12 mm	846AC, 8460X-4
EST0203	Oxygen - Propane	Ø 12 mm	846PR, 8460X
EST0204	Oxygen - Propane	Ø 12 mm	846PR, 8460X-4

Other options upon request.

THREE STATIONS POINT-OF-USE

MODEL SHOWN:
EST0301

FEATURES:

- ▶ Ball valve
- ▶ Brazed connection
- ▶ Connection thread 3/8" (F)
- ▶ Bracket and 3 pressure regulators included



PART NO.	GAS TYPE	PIPELINE CONNECTION	REGULATOR
EST0301	Oxygen - Acetylene - Argon/CO ₂	Ø 12 mm	8460X, 846AC, 846-30LM
EST0302	Oxygen - Acetylene - Argon/CO ₂	Ø 12 mm	8460X, 846AC, 846-30FLAR
EST0303	Oxygen - Propane - Argon/CO ₂	Ø 12 mm	8460X, 846PR, 846-30LM
EST0304	Oxygen - Propane - Argon/CO ₂	Ø 12 mm	8460X, 846PR, 846-30FLAR

Other options upon request.

GESTV-5

MODEL

PORTABLE PANELS POINT-OF-USE

MODEL SHOWN:
GESTV-5-I

FEATURES:

- ▶ For supplying up to 5 workplaces with flammable or non-flammable gases, e.g. on construction sites
- ▶ Side inlet connection
- ▶ Mounting plate including outlet ball valves made of stainless steel
- ▶ Base provides maximum stability
- ▶ Point-of-use pressure regulators and safety devices are optional



Model shown with regulators to be ordered separately

PART NO.	GAS TYPE	INLET CONNECTION	OUTLET CONNECTION	MAX. WORKING PRESSURE (bar)
GESTV-5-0X	Oxygen	G1/2RH	G3/8RH	20
GESTV-5-I	Compressed air / inert gases	G1/2RH	G3/8RH	20
GESTV-5-B	Fuel gases (except acetylene)	G1/2LH	G3/8LH	20
GESTV-5-AC	Acetylene	G1/2LH	G3/8LH	1,5

POINT-OF-USE PRESSURE & FLOW REGULATORS

353
MODEL



ECONOMICAL PIPELINE REGULATOR

MODEL SHOWN:
353-30FLAR

APPLICATIONS:

- ▶ Designed for light duty welding from industrial pipeline points

FEATURES:

- ▶ Built smart and priced economically
- ▶ Compact design, forged brass body for maximum strength
- ▶ Design is more resistant to CO₂ freeze-up and gauge damage than typical flow control devices
- ▶ Saves gas - operates at pressures lower than typical
- ▶ Maximum inlet pressure 10 bar
- ▶ Flowmeter with easy-to-read polycarbonate outer tube cover for strength and 360° visibility
- ▶ One-piece encapsulated seat design with internal filter and PTFE (Teflon®) seat
- ▶ 7 year warranty



MODEL NO.	GAS	MAX INLET PRESSURE (bar)	FLOW (lpm)	FLOWMETER (lpm)
353-30FLAR	Argon / CO ₂	10	0 - 30	0 - 30

653
MODEL



PIPELINE FLOWMETER WITH SHIELDING GAS SAVING FEATURE

MODEL SHOWN:
653-30FLAR

APPLICATIONS:

- ▶ All types of welding
- ▶ Designed to deliver high accuracy gas flow and to reduce the consumption of shielding gas

FEATURES:

- ▶ Forged brass body for maximum strength
- ▶ Pipeline gas supplied
- ▶ Inlet filter to protect against contamination
- ▶ Precise gas flow control
- ▶ Strong flowmeter resistant to mechanical damages
- ▶ Polycarbonate outer tube cover with good 360° visibility
- ▶ Side entry
- ▶ One-piece encapsulated seat design with internal filter and PTFE (Teflon®) seat
- ▶ Lockable version available
- ▶ 7 year warranty



Lockable version

MODEL NO.	GAS	MAX INLET PRESSURE (bar)	FLOW (lpm)	SUPPLY PRESSURE GAUGE (bar)	FLOWMETER (lpm)
653-30FLAR	Argon / CO ₂	10	0 - 30	-	0 - 34

* Teflon® is a registered trademark of The Chemours Company.

H47

MODEL



HIGH FLOW PIPELINE REGULATOR

MODEL SHOWN:
H47AS-40

APPLICATIONS:

- Designed for high flow requirement for feeding industrial gas pipelines for plasma and laser cutting

FEATURES:

- Maximum inlet pressure 60 bar
- Rear inlet connection
- Air flow over 370 m³/h
- Stainless steel diaphragm
- T- screw handle provides smooth turning action and long service life
- One-piece encapsulated seat design with internal filter and PTFE (Teflon®) seat
- 7 year warranty



MODEL NO.	GAS	MAX INLET PRESSURE (bar)	DELIVERY PRESSURE (bar)	MAX (AIR) FLOW (m ³ /h)	DELIVERY PRESSURE GAUGE (bar)
H47DS-15**	Argon, CO ₂ , Nitrogen, Air, Helium, Hydrogen, Oxygen, Methane	60	0 - 15	330	0 - 25
H47DS-25**	Argon, CO ₂ , Nitrogen, Air, Helium, Hydrogen, Oxygen, Methane	60	0 - 25	350	0 - 40
H47AS-40**	Argon, CO ₂ , Nitrogen, Air, Helium, Hydrogen, Oxygen, Methane	60	0 - 40	390	0 - 60

847

MODEL



PIPELINE REGULATOR

MODEL SHOWN:
847-30-L

APPLICATIONS:

- Specially designed to allow high flow rate from industrial and laboratory pipeline points. Particularly suited to machine cutting where more than one torch is used. Also for heavy cutting and heating.

FEATURES:

- High flow and outlet pressure (up to 15 bar) line regulator
- Forged brass body for maximum strength
- Sintered alloy inlet filter to trap impurities
- Maximum inlet pressure 25 bar
- 15 lpm, 30 lpm and 50 lpm versions available for argon and CO₂
- One-piece encapsulated seat design with internal filter and PTFE (Teflon®) seat
- 7 year warranty



MODEL NO.	GAS	MAX INLET PRESSURE (bar)	DELIVERY PRESSURE (bar)	MAX (AIR) FLOW (m ³ /h)	DELIVERY PRESSURE GAUGE (bar)	FLOWGAUGE (lpm)
847-1.5-AC	Acetylene	25	0 - 1,5	13	0 - 2,5	-
847-4-LP	Propane	25	0 - 4	76	0 - 6	-
847-10-0X	Oxygen	25	0 - 10	95	0 - 16	-
847-10**	Argon, CO ₂ , Nitrogen, Air, Helium, Hydrogen, Methane	25	0 - 10	95	0 - 16	-
847-15-0X	Oxygen	25	0 - 15	135	0 - 25	-
847-15**	Argon, CO ₂ , Nitrogen, Air, Helium, Hydrogen, Methane	25	0 - 15	135	0 - 25	-
847-15-L-AR/CD	Argon / CO ₂	25	-	-	-	0 - 15
847-30-L-AR/CD	Argon / CO ₂	25	-	-	-	0 - 30
847-50-L-AR/CD	Argon / CO ₂	25	-	-	-	0 - 50

* Teflon® is a registered trademark of The Chemours Company.

**The regulator is available for all the listed gases. When ordering always specify gas.



THE HARRIS PRODUCTS GROUP
www.harrisproductsgroup.com

POINT-OF-USE PRESSURE & FLOW REGULATORS

845

MODEL



PIPELINE REGULATOR

MODEL SHOWN:
845-30-L-AR

APPLICATIONS:

- Specially designed to allow high flow rate from industrial and laboratory pipeline points

FEATURES:

- High flow
- Outlet pressure up to 10 bar
- Forged brass body for maximum strength
- Maximum inlet pressure 25 bar
- One-piece encapsulated seat design with internal filter and PTFE (Teflon®) seat
- 7 year warranty



MODEL NO.	GAS	MAX INLET PRESSURE (bar)	DELIVERY PRESSURE (bar)	MAX (AIR) FLOW (m³/h)	DELIVERY PRESSURE GAUGE (bar)	FLOWGAUGE (lpm)
845-1.5-AC	Acetylene	25	0 - 1,5	13	0 - 2,5	-
845-4-LP	Propane	25	0 - 4	76	0 - 6	-
845-10-0X	Oxygen	25	0 - 10	95	0 - 16	-
845-10**	Argon, CO ₂ , Nitrogen, Air, Helium, Oxygen, Methane	25	0 - 10	95	0 - 16	-
845-15-L-AR/CD	Argon / CO ₂	25	-	-	-	0 - 15
845-30-L-AR/CD	Argon / CO ₂	25	-	-	-	0 - 30
845-50-L-AR/CD	Argon / CO ₂	25	-	-	-	0 - 50

846

MODEL



PIPELINE REGULATOR

MODEL SHOWN:
846-10-0X

APPLICATIONS:

- Specially designed to allow high flow rate from industrial and laboratory pipeline points

FEATURES:

- High flow and outlet pressure (up to 10 bar) line regulator
- Forged brass body for maximum strength
- Sintered alloy inlet filter to trap impurities
- Downward knob improves operator safety
- Maximum inlet pressure 25 bar
- One-piece encapsulated seat design with internal filter and PTFE (Teflon®) seat
- 7 year warranty



MODEL NO.	GAS	MAX INLET PRESSURE (bar)	DELIVERY PRESSURE (bar)	MAX (AIR) FLOW (m³/h)	DELIVERY PRESSURE GAUGE (bar)	FLOWGAUGE (lpm)
846-1.5-AC	Acetylene	25	0 - 1,5	13	0 - 2,5	-
846-4-LP	Propane	25	0 - 4	76	0 - 6	-
846-10-0X	Oxygen	25	0 - 10	95	0 - 16	-
846-10**	Argon, CO ₂ , Nitrogen, Air, Helium, Hydrogen, Methane	25	0 - 10	95	0 - 16	-
846-15-L-AR/CD	Argon / CO ₂	25	-	-	-	0 - 15
846-30-L-AR/CD	Argon / CO ₂	25	-	-	-	0 - 30
846-50-L-AR/CD	Argon / CO ₂	25	-	-	-	0 - 50

* Teflon® is a registered trademark of The Chemours Company.

**The regulator is available for all the listed gases. When ordering always specify gas.

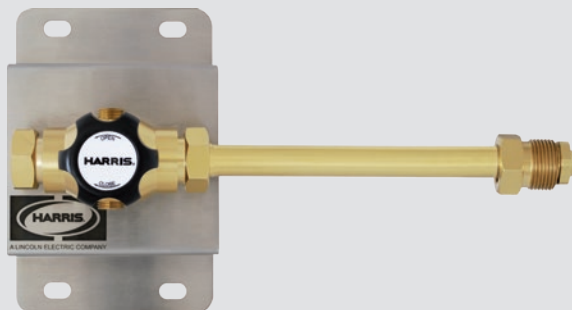
MODULAR EXTENSIONS

APPLICATIONS:

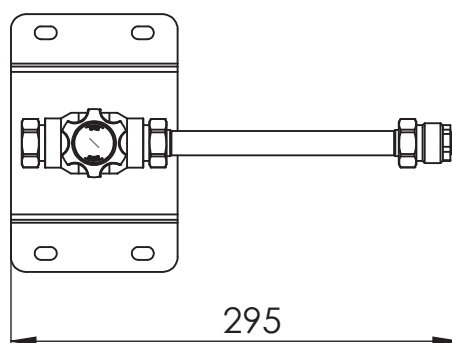
- Designed to increase the number of connected cylinders to supply panel

FEATURES:

- Max. inlet pressure 300 bar
- Modular design
- Diaphragm inlet shut off valve option
- Easy to install
- Two options: left or right



PART NO.	DESCRIPTION	GAS	MAX INLET PRESSURE (bar)
9110300	Header IMSEMR right	Non-corrosive	300
9110301	Header IMSEML left	Non-corrosive	300



HIGH PRESSURE HOSES



APPLICATIONS:

- For connecting gas supply panels and gas cylinder

FEATURES:

- Two versions of hoses: stainless steel or PTFE
- High pressure: working pressure up to 300 bar (4350 psig)
- Length 1 m or 2 m
- Inner diameter 6 mm
- All hoses equipped with a stainless steel safety wires
- All types of couplings according to the customer's specification available
- Special requirements e.g. check valve for acetylene upon request

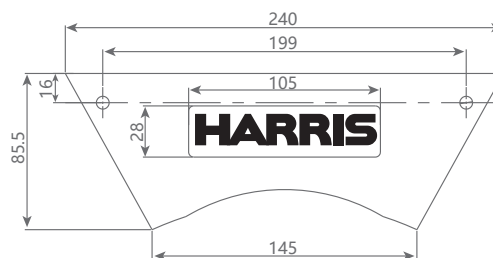
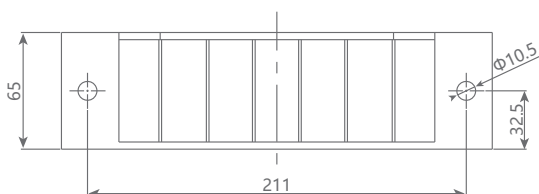
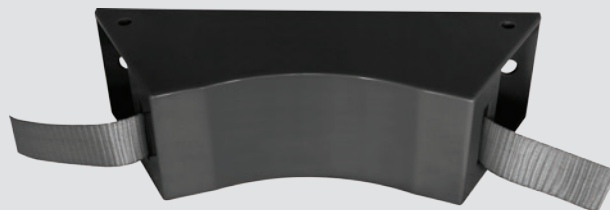
MODEL	MATERIAL	LENGTH	OUTLET (MANIFOLD CONNECTION)	INLET (CYLINDER CONNECTION)	OPTIONS
IMS-FH	PTFE + aramid braid + 304 stainless steel wire braid T	1 m 1000	1/4" NPT male 001	1/4" NPT male 001	Elbow inlet connection 000
	Corrugated stainless steel 316L + double AISI 304 stainless steel braid S			1/4" NPT female 002	Elbow inlet and outlet connection EE
				Please specify, e.g.:	Straight inlet connection SC
	Polyamide + aramid fibre braid + steel wire braid + pinpricked polyurethane AC	2 m 2000	1/4" NPT female 002	DIN 477-1 No. 10 D10	With check valve CV Without check valve W/O CV

Example: IMS-FH-S-1000-001-D10-000-CV

CYLINDER WALL BRACKET

DESCRIPTION:

- Special design for one cilinder
- Easy installation to a wall or construction
- Delivered with safety belt
- ABS material



PART NO.	DESCRIPTION	MATERIAL
9009506	Cylinder wall bracket	ABS

FLASHBACK ARRESTORS

- ▶ Prevent reverse flow of gases with built-in check valve
- ▶ Extinguish flashback fire with sintered metal filter
- ▶ Thermal cut-off which positively shuts off the gas in case of hose fire, burn or repeated flashbacks (only "T" version)
- ▶ Pressure operated cut-off which positively shuts off the gas when outlet pressure exceeds inlet pressure (only "3T" version)



REGULATOR TYPE								
PART NO.	GAS	MAX FLOW (l/h)	MAX PRESSURE (bar)*				INLET THREAD	OUTLET THREAD
			OXY	AC	LPG	H ₂		
188-L	Fuel gas	30 000	-	1,5	5	3,5	9/16"-18-UNF-2B-LH	9/16"-18-UNF-2A-LH
188-R	Ox	100 000	25	-	-	-	9/16"-18-UNF-2B-RH	9/16"-18-UNF-2A-RH
188-LGB	Fuel gas	30 000	-	1,5	5	3,5	G 3/8"-LH-UNI ISO 228	G 3/8" A-LH-UNI ISO 228
188-RGB	Ox	100 000	25	-	-	-	G 3/8"-RH-UNI ISO 228	G 3/8" A-RH-UNI ISO 228
188-2L	Fuel gas	60 000	-	1,5	5	4,0	9/16"-18-UNF-2B-LH	9/16"-18-UNF-2A-LH
188-2R	Ox	180 000	25	-	-	-	9/16"-18-UNF-2B-RH	9/16"-18-UNF-2A-RH
188-2AL	Fuel gas	60 000	-	1,5	5	4,0	5/8"-18-UNF-LH	5/8"-18-UNF-LH
188-2AR	Ox	180 000	25	-	-	-	5/8"-18-UNF-RH	5/8"-18-UNF-RH
188-2LGB	Fuel gas	60 000	-	1,5	5	4,0	G 3/8"-LH-UNI ISO 228	G 3/8" A-LH-UNI ISO 228
188-2RGB	Ox	180 000	25	-	-	-	G 3/8"-RH-UNI ISO 228	G 3/8" A-RH-UNI ISO 228
188-GL	Fuel gas	30 000	-	1,5	5	3,5	G 1/4"-LH-UNI ISO 228	G 1/4" A-LH-UNI ISO 228
188-GR	Ox	100 000	25	-	-	-	G 1/4"-RH-UNI ISO 228	G 1/4" A-RH-UNI ISO 228
188-FFL	Fuel gas	30 000	-	1,5	5	3,5	M16x1.5-6H-LH	M16x1.5-6g-LH
188-FFR	Ox	100 000	25	-	-	-	M16x1.5-6H-RH	M16x1.5-6g-RH



188- (L & R)



188-2 (L & R)

REGULATOR TYPE								
PART NO.	GAS	MAX FLOW (l/h)	MAX PRESSURE (bar)*				INLET THREAD	OUTLET THREAD
			OXY	AC	LPG	H ₂		
188-TL	Fuel gas	30 000	-	1,5	5	3,5	9/16"-18-UNF-2B-LH	9/16"-18-UNF-2A-LH
188-TR	Ox	100 000	25	-	-	-	9/16"-18-UNF-2B-RH	9/16"-18-UNF-2A-RH
188-TAL	Fuel gas	30 000	-	1,5	5	3,5	5/8"-18-UNF-LH	5/8"-18-UNF-LH
188-TAR	Ox	100 000	25	-	-	-	5/8"-18-UNF-RH	5/8"-18-UNF-RH
188-TLGB	Fuel gas	30 000	-	1,5	5	3,5	G 3/8"-LH-UNI ISO 228	G 3/8" A-LH-UNI ISO 228
188-TRGB	Ox	100 000	25	-	-	-	G 3/8"-RH-UNI ISO 228	G 3/8" A-RH-UNI ISO 228
188-2TAL	Fuel gas	60 000	-	1,5	5	4,0	5/8"-18-UNF-LH	5/8"-18-UNF-LH
188-2TAR	Ox	180 000	25	-	-	-	5/8"-18-UNF-RH	5/8"-18-UNF-RH
188-2TL	Fuel gas	60 000	-	1,5	5	4,0	9/16"-18-UNF-2B-LH	9/16"-18-UNF-2A-LH
188-2TR	Ox	180 000	25	-	-	-	9/16"-18-UNF-2B-RH	9/16"-18-UNF-2A-RH
188-2TLGB	Fuel gas	60 000	-	1,5	5	4,0	G 3/8"-LH-UNI ISO 228	G 3/8" A-LH-UNI ISO 228
188-2TRGB	Ox	180 000	25	-	-	-	G 3/8"-RH-UNI ISO 228	G 3/8" A-RH-UNI ISO 228



188-T (L & R)

REGULATOR TYPE								
PART NO.	GAS	MAX FLOW (l/h)	MAX PRESSURE (bar)*				INLET THREAD	OUTLET THREAD
			OXY	AC	LPG	H ₂		
188-3TLGB	Fuel gas	60 000	-	1,5	5	4,0	G 3/8"-LH-UNI ISO 228	G 3/8" A-LH-UNI ISO 228
188-3TRGB	Ox	180 000	15	-	-	-	G 3/8"-RH-UNI ISO 228	G 3/8" A-RH-UNI ISO 228



188-3T (LGB & RGB)

*1 bar=100 kPa



A LINCOLN ELECTRIC COMPANY

Harris Calorific International Sp. z o.o.
ul. Strefowa 8
58-200 Dzierżoniów, Poland
+48 74 646 23 52 (3)
e-mail: marketingharris@lincolnelectric.eu

Harris Calorific GmbH
Beethovenstraße 9
88450 Berkheim, Germany
+49(0)8395 91280 0
fax: +49(0)8395 91280 20
e-mail: info@harriscal.de

Harris Calorific Srl
Via Ronco Maruni 34
40068 San Lazzaro di Savena (BO), Italy
+39(51)3766 227
fax: +39(51)3766 202
e-mail: venitalia@harriscal.it

Harris Euro, S.L.U.
C/ Arq. Ricard Giralt s/n Nave 6
17600 Figueres (Girona), Spain
+34 972 67 88 26
fax: +34 972 50 51 43
e-mail: harriseuro@harriseuro.com