

Chiyoda's High-Pressure Gas Control System and Equipment



Manufacturers & Distributors

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CATALOG 2012

2012

CHIYODA HELPS YOUR GAS RELATED JOBS . . .

Since the establishment
1946, we started as a
manufacturer of Gas Welding
& Cutting Equipment.

Nowadays we are very famous as
a Total Gas System Planner of
controlling all kinds of High Pressure
Gases.

We will continue to make our best effort to
supply gas systems more safely & more
effectively.



HEAD OFFICE

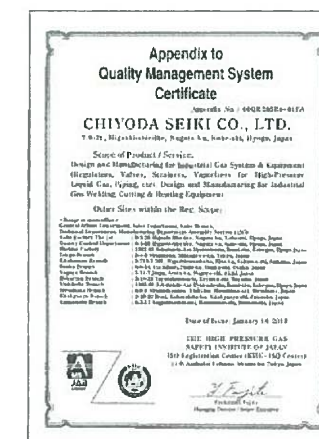
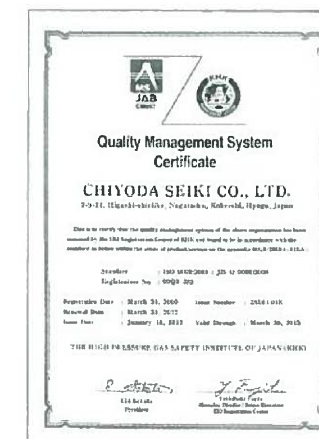
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- Specifications in this catalog are subject to change without any obligation on the part of the manufacturer.
- The numerical values, showing in this catalog, are all approximations.

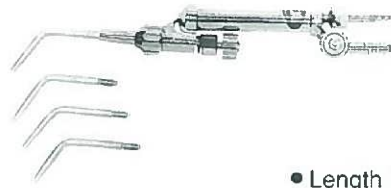
ISO9001 CERTIFICATE



1 STANDARD TYPE HAND WELDING TORCHES FOR OXY-ACETYLENE/OXY-HYDROGEN



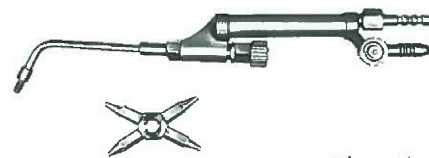
Model 1 Tiny-00 (Swaged) Torch



Tip No.	Tip Orifice (φ mm)	Range (mm)	Pressure (kgf/cm ²)	
			Oxygen	Acetylene
25	0.6	0.4~0.5	1.5	0.15
50	0.7	0.5~0.7	2.0	0.2
70	0.8	0.6~0.9	◇	◇
100	0.9	0.8~1.2	◇	◇

- Length 280mm (without tip)
- Weight Torch 300g Tip 25g
- With 4 pieces tips

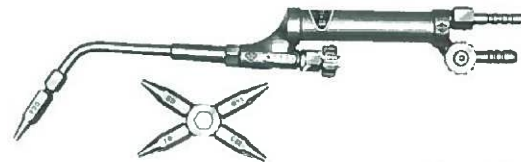
Model 2 Tiny-00 Torch



Tip No.	Tip Orifice (φ mm)	Range (mm)	Pressure (kgf/cm ²)	
			Oxygen	Acetylene
10	0.4	0.1~0.3	1.5	0.15
16	0.5	0.3~0.4	◇	◇
25	0.6	0.4~0.5	◇	◇
40	0.7	0.5~0.7	◇	◇

- Length 310mm (without tip)
- Weight Torch 300g Tip 10g
- With 4 pieces tips

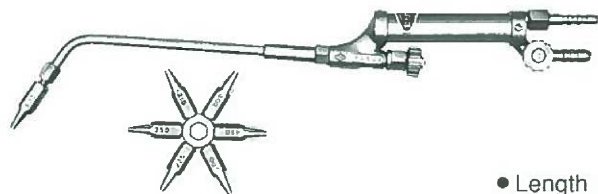
Model 4 Small Torch



Tip No.	Tip Orifice (φ mm)	Range (mm)	Pressure (kgf/cm ²)	
			Oxygen	Acetylene
50	0.7	0.5~0.7	2.0	0.2
70	0.8	0.6~0.9	◇	◇
100	0.9	0.8~1.2	◇	◇
140	1.0	1.0~1.5	◇	◇
200	1.2	1.5~2.0	◇	◇

- Length 380mm (without tip)
- Weight Torch 480g Tip 25g
- With 5 pieces tips

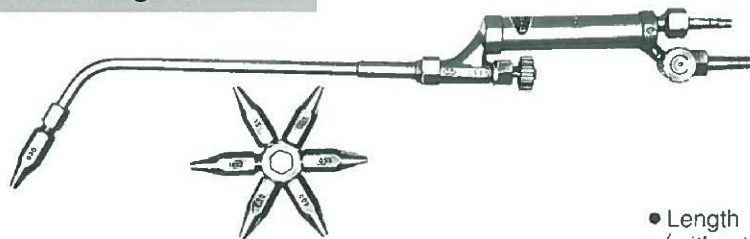
Model 5 Medium Torch



Tip No.	Tip Orifice (φ mm)	Range (mm)	Pressure (kgf/cm ²)	
			Oxygen	Acetylene
200	1.2	1.5~2.0	3.0	0.3
225	1.3	2.0~2.3	◇	◇
250	1.4	2.3~2.5	◇	◇
315	1.5	2.5~3.2	◇	◇
400	1.6	3.2~4.0	◇	◇
450	1.7	4.0~4.5	◇	◇
500	1.8	4.5~5.0	◇	◇

- Length 435mm (without tip)
- Weight Torch 490g Tip 25g
- With 7 pieces tips

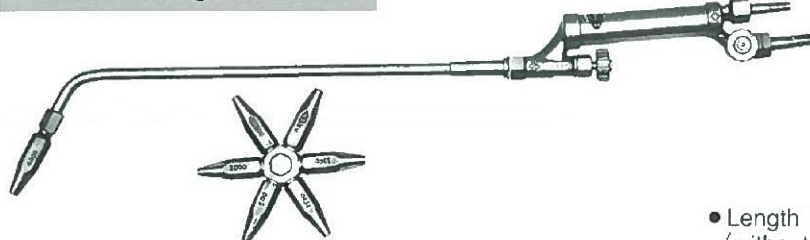
Model 6 Large-A Torch



Tip No.	Tip Orifice (φ mm)	Range (mm)	Pressure (kgf/cm ²)	
			Oxygen	Acetylene
250	1.4	2.3~2.5	3.0	0.3
315	1.5	2.5~3.2	◇	◇
400	1.6	3.2~4.0	◇	◇
500	1.8	4.0~5.0	◇	◇
630	2.0	5.0~6.5	4.0	0.4
800	2.2	6.5~8.0	◇	◇
1,000	2.4	8.0~10.0	◇	◇

- Length 550mm (without tip)
- Weight Torch 680g Tip 45g
- With 7 pieces tips

Model 7 Large-B Torch



Tip No.	Tip Orifice (φ mm)	Range (mm)	Pressure (kgf/cm ²)	
			Oxygen	Acetylene
1,200	2.6	10~12	5.0	0.5
1,500	2.8	12~15	◇	◇
2,000	3.0	15~20	◇	◇
2,500	3.2	20~25	◇	◇
3,000	3.4	25~30	◇	◇
3,500	3.6	30~35	◇	◇
4,000	3.8	35~40	◇	◇

- Length 650mm (without tip)
- Weight Torch 730g Tip 50g
- With 7 pieces tips

2 STANDARD TYPE HAND HEATING TORCHES FOR OXY-PROPANE/OXY-NATURAL GAS



Model 61 Tiny-00 Torch



Tip No.	Tip Orifice (φ mm)	Range (mm)	Pressure (kgf/cm ²)	
			Oxygen	Propane
16	0.5	0.3~0.4	1.5	0.15
25	0.6	0.4~0.5	◇	◇
40	0.7	0.5~0.7	◇	◇

- Length 310mm (without tip)
- Weight Torch 360g Tip 12g
- With 3 pieces tips

Model 62 Small Torch



Tip No.	Tip Orifice (φ mm)	Range (mm)	Pressure (kgf/cm ²)	
			Oxygen	Propane
50	0.7	0.5~0.7	2.0	0.2
100	0.9	0.7~1.2	◇	◇
200	1.2	1.2~2.0	◇	◇

- Length 380mm (without tip)
- Weight Torch 480g Tip 25g
- With 3 pieces tips

Model 63 Medium Torch



Tip No.	Tip Orifice (φ mm)	Range (mm)	Pressure (kgf/cm ²)	
			Oxygen	Propane
300	1.5	2.0~3.2	3.0	0.3
400	1.6	3.2~4.0	◇	◇
500	1.8	4.0~5.0	◇	◇

- Length 435mm (without tip)
- Weight Torch 490g Tip 25g
- With 3 pieces tips

Model 64 Large-A Torch



Tip No.	Tip Orifice (φ mm)	Range (mm)	Pressure (kgf/cm ²)	
			Oxygen	Propane
600	2.0	5.0~6.5	4.0	0.4
800	2.2	6.5~8.0	◇	◇
1,000	2.4	8.0~10.0	◇	◇

- Length 550mm (without tip)
- Weight Torch 680g Tip 50g
- With 3 pieces tips

Model 65 Large-B Torch



Tip No.	Tip Orifice (φ mm)	Range (mm)	Pressure (kgf/cm ²)	
			Oxygen	Propane
2,000	3.0	10~20	5.0	0.5
3,000	3.4	20~30	◇	◇
4,000	3.8	30~40	◇	◇

- Length 650mm (without tip)
- Weight Torch 730g Tip 50g
- With 3 pieces tips

DUAL FLEX TIPPED HAND BURNER FOR BRAZING & SOLDERING WORKS



- Two flexible extensions can be bent to suit job for best heat distribution.
- The most versatile for welding, brazing, silver soldering and light heating applications to suit job for accuracy identification.

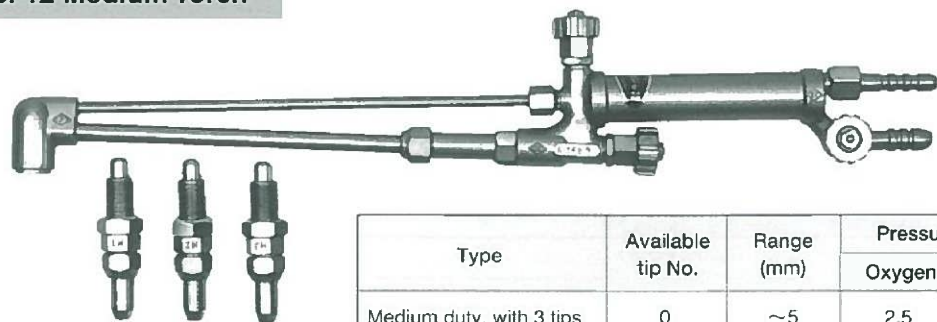
Torch	Acetylene		Propane		Length up to Injector (mm)	Weight up to Injector/Tips (g)
	Tip No.	Range (mm)	Tip No.	Range (mm)		
Tiny Torch	10, 16, 25 & 40	0.1~0.7	16, 25 & 40	0.3~0.7	190	300/12
Small Torch	50, 70, 100, 140, 200	0.5~2.0	50, 100 & 200	0.5~2.0	215	430/25
Medium Torch	200, 225, 250, 315, 400, 450, 500	1.5~5.0	300, 400, 500	2.0~5.0	215	430/25
Large-A Torch	250, 315, 400, 500, 630, 800, 1000	2.3~10.0	600, 800, 1000	5.0~10.0	250	600/50
Large-B Torch	1200, 1500, 2000, 2500, 3000, 3500, 4000	10.0~40.0	2000, 3000, 4000	10.0~40.0	250	600/50

※Please specify length for the tubes.

STANDARD TYPE HAND CUTTING TORCHES

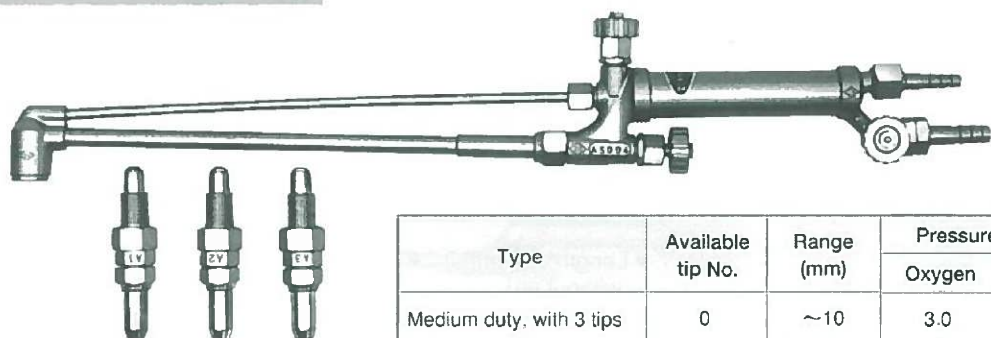
FOR OXY-ACETYLENE/OXY-PROPANE/OXY-NATURAL GAS 

Model 12 Medium Torch



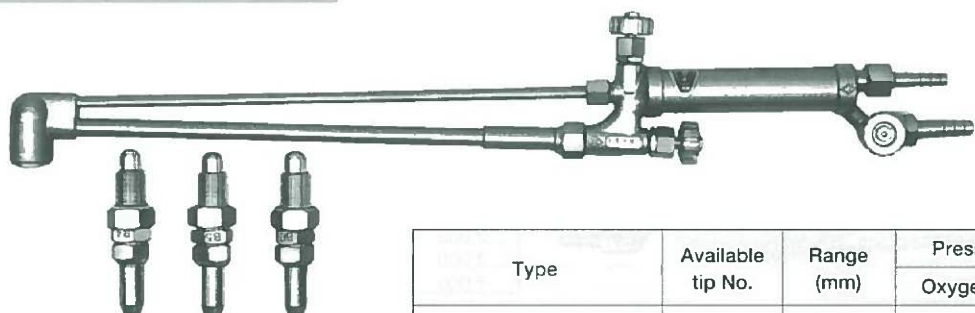
Type	Available tip No.	Range (mm)	Pressure (kgf/cm ²)		Length (mm)	Weight (g)
			Oxygen	Gas		
Medium duty, with 3 tips	0	~5	2.5	0.25	460	Torch: 650 Tip: AC 65 LPG 70
	1	3~7	◇	◇		
	2	5~15	◇	◇		
	3	10~20	◇	◇		

Model 14 Large-A Torch



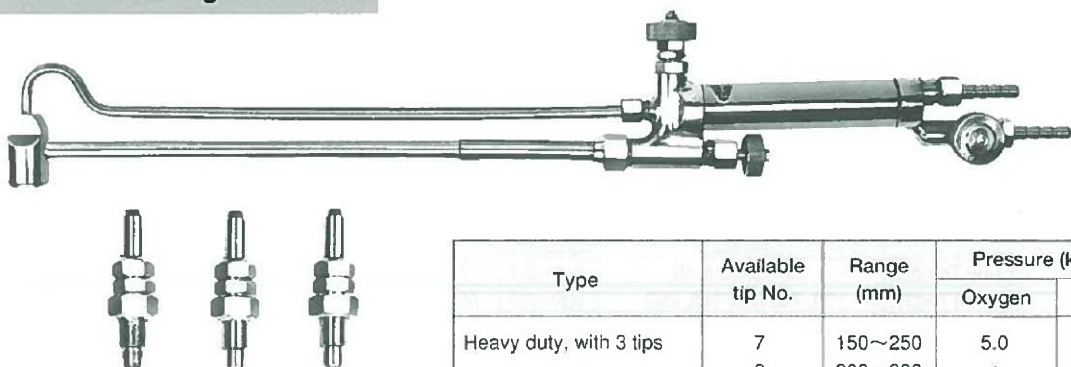
Type	Available tip No.	Range (mm)	Pressure (kgf/cm ²)		Length (mm)	Weight (g)
			Oxygen	Gas		
Medium duty, with 3 tips	0	~10	3.0	0.3	535	Torch: 850 Tip: AC 120 LPG 125
	1	5~15	◇	◇		
	2	15~30	◇	◇		
	3	25~50	◇	◇		

Model 16 Large-B Torch



Type	Available tip No.	Range (mm)	Pressure (kgf/cm ²)		Length (mm)	Weight (g)
			Oxygen	Gas		
Heavy duty, with 3 tips	4	40~80	4.0	0.4	570	Torch: 910 Tip: AC 160 LPG 170
	5	60~150	◇	◇		
	6	120~200	◇	◇		

Model 17 Large-C Torch



Type	Available tip No.	Range (mm)	Pressure (kgf/cm ²)		Length (mm)	Weight (g)
			Oxygen	Gas		
Heavy duty, with 3 tips	7	150~250	5.0	0.5	790	Torch: 1620 Tip: AC 250 LPG 270
	8	200~300	◇	◇		
	9	250~350	◇	◇		

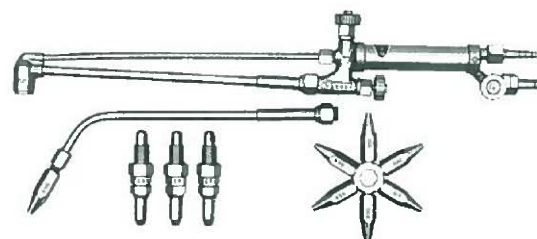
COMBINATION HAND WELDING & CUTTING TORCHES

FOR OXY-ACETYLENE/OXY-PROPANE/OXY-NATURAL GAS 

VICTORY Standard Combination Torches, operate on low pressured acetylene/propane gas, are designed for economy, safety and convenience.

Model 13 Medium Torch

Model 15 Large-A Torch



Type	Gas	Model	Tip No.	Pressure (kgf/cm ²)		Range (mm)	Length (mm)
				Oxygen	Gas		
Medium	Acetylene	13	Cutting tip No.1,2 & 3	2.5	0.25	3~20	460
			Welding tip No.200, 225, 250, 315, 400, 450 & 500				
	Propane	18	Cutting tip No.1,2 & 3				
Heating tip No.300, 400 & 500							
Large-A	Acetylene	15	Cutting tip No.1,2 & 3	3-4	0.3-0.4	5~50	535
			Welding tip No.250, 315, 400, 500, 630, 800 & 1000				
	Propane	20	Cutting tip No.1,2 & 3				
Heating tip No.600, 800 & 1000							

Weight (g)

	Medium	Large-A
Torch	650	850
Welding Tube	75	200
Cutting Tip	AC 65 LPG 70	AC 120 LPG 125
Welding Tip	25	45

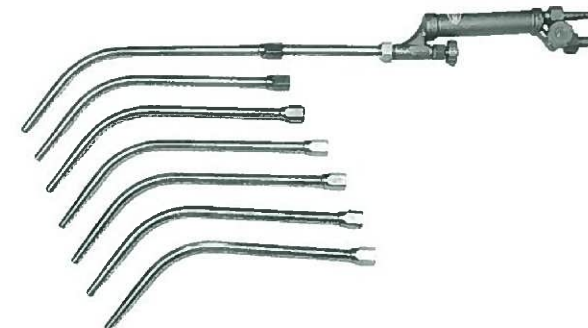
SWAGE TYPE HAND WELDING TORCHES FOR OXY-ACETYLENE



Model 8 Swage G-0

Model 9 Swage G-1

Model 10 Swage G-2



Type	Gas	Model	Tip No.	Pressure (kgf/cm ²)		Range (mm)	Length (mm)	Weight (g)	
				Oxygen	Acetylene			Torch	Tip
G-0	Acetylene	8	50, 70, 100, 140 & 200	2	0.2	0.5~2.0	380	400	30
G-1			250, 315, 400, 500, 630, 800 & 1000	4	0.4	2.3~10	510	570	100
G-2			1200, 1500, 2000, 2500, 3000, 3500 & 4000	5	0.5	10~40	590	600	150

ORIGINAL TYPE HAND WELDING TORCHES

"GLITTER" FOR OXY-ACETYLENE/OXY-PROPANE/OXY-HYDROGEN 



- Aluminum Die-casting Grip is easy to handle for operator.
- Stainless-steel made torch-tubes is lead long service-life.
- Special O-ring in the injector made a perfect gas sealing.
- Tight seating designed valve spindle is legalized leak-free.
- New designed valve spindle is easy to replace.

Type	Standard Tips (No. Orifice φmm)							Welding Plate thickness (mm)	Pressure (kgf/cm ²)		Length (mm)	Weight (g)	
	No.	10	16	25	40				Oxygen	Acetylene		Torch	Tip
TINY-00	Orifice φmm	0.4	0.5	0.6	0.7			0.1~0.7	1.5	0.15	370	500	10
	No.	50	70	100	140	200							
SMALL	Orifice φmm	0.7	0.8	0.9	1.0	1.2		0.5~2.0	2.0	0.2	395	530	25
	No.	200	225	250	315	400	500						
MEDIUM	Orifice φmm	1.2	1.3	1.4	1.5	1.6	1.7	1.5~5.0	3.0	0.3	435	540	25
	No.	250	315	400	500	630	800						
LARGE-A	Orifice φmm	1.4	1.5	1.6	1.8	2.0	2.2	2.3~10.0	3.0~4.0	0.3~0.4	600	760	45
	No.	1200	1500	2000	2500	3000	3500						
LARGE-B	Orifice φmm	2.6	2.8	3.0	3.2	3.4	3.6	10.0~40.0	5.0	0.5	650	770	50
	No.												

ORIGINAL TYPE HAND CUTTING TORCHES (TORCH MIXING TYPE)

"GLITTER" FOR OXY-ACETYLENE/OXY-PROPANE/OXY-NATURAL GAS 



- Aluminum Die-casting Grip is easy to handle for operator.
- Stainless-steel made Torch-tubes are lead long service-life.
- Special O-ring in the injector made a perfect gas sealing.
- Tight seating design valve spindle is legalized leak-free.
- Silver plated special cutting tips are free from spatter.
- Flat designed head & tail are used wrench easily.

Type	Tip No.	Orifice (φ mm)	Thickness to be cut (mm)	Pressure (kgf/cm ²)		Length (mm)	Weight (g)	
				Oxygen	Fuel gas		Torch	Tip
MEDIUM	0	0.6	~5	2.5	0.25	465	670	AC 65 LPG 70
	1	0.7	3~7					
	2	0.9	5~15					
	3	1.1	10~20					
LARGE-A	0	0.8	~10	3.0	0.3	525	900	AC 120 LPG 125
	1	1.0	5~15					
	2	1.3	15~30					
	3	1.6	25~50					

※Combination Welding And Cutting Torch Sets are also available

ORIGINAL TYPE HAND CUTTING TORCHES (TORCH MIXING TYPE)

"NEW-GLITTER" FOR OXY-ACETYLENE/OXY-PROPANE 



- Hard stainless-steel made torch-tubes are lead long service-life.
- The lightest weight (530g) is good for long time operation.
- New designed valve spindle is easy to replace.
- Silver plated special cutting tips are free from spatter.
- Individual oxygen and gas lines are legalized most safety.

Type	Tip No.	Orifice (φ mm)	Thickness to be cut (mm)	Pressure (kgf/cm ²)		Length (mm)	Weight (g)	
				Oxygen	Fuel gas		Torch	Tip
MEDIUM	0	0.6	~5	2.5	0.25	420	530	AC 65 LPG 70
	1	0.7	3~7					
	2	0.9	5~15					
	3	1.1	10~20					
LARGE-A	0	0.8	~10	3.0	0.3	470	570	AC 120 LPG 125
	1	1.0	5~15					
	2	1.3	15~30					
	3	1.6	25~50					

※Combination Welding And Cutting Torch Sets are also available

ORIGINAL TYPE HAND CUTTING TORCHES (TORCH MIXING TYPE)

"NEW-GLITTER DX" FOR OXY-ACETYLENE/OXY-PROPANE 



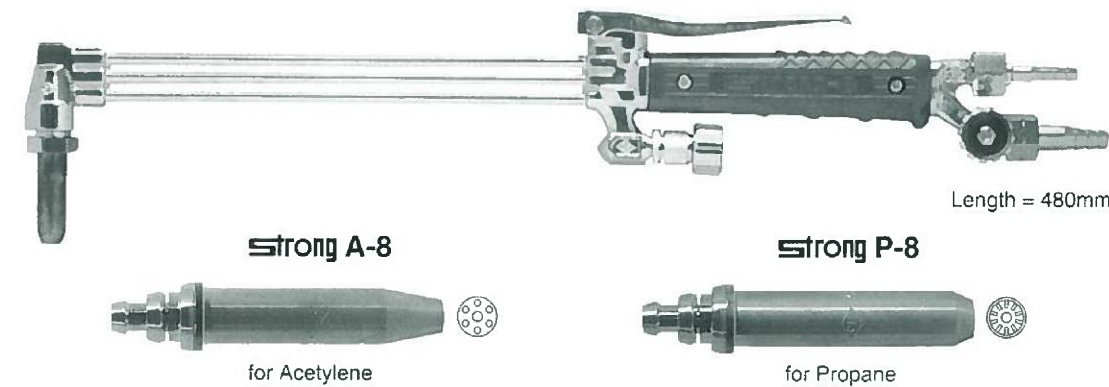
- Short length design with well-balanced weight enables stable cutting performance.

Type	Tip No.	Orifice (φ mm)	Thickness to be cut (mm)	Pressure (kgf/cm ²)		Length (mm)	Weight (g)	
				Oxygen	Fuel gas		Torch	Tip
MEDIUM	0	0.6	~5	2.5	0.25	445	665	AC 65 LPG 70
	1	0.7	3~7					
	2	0.9	5~15					
	3	1.1	10~20					
LARGE-A	0	0.8	~10	3.0	0.3	500	820	AC 120 LPG 125
	1	1.0	5~15					
	2	1.3	15~30					
	3	1.6	25~50					

MEDIUM DUTY HAND CUTTING TORCH (TIP MIXING TYPE)

"Strong-8" FOR OXY-ACETYLENE/OXY-PROPANE/OXY-ETHYLENE/OXY-NATURAL GAS 

COVERING A RANGE OF METAL THICKNESS UP TO 80mm(3")



Length = 480mm

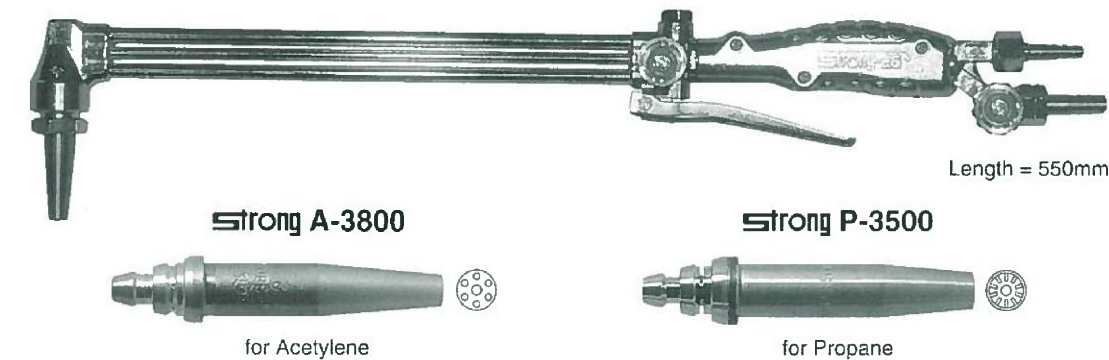
Size	Orifice (φ mm)	Thickness to be cut (mm)	Cutting Speed (mm/min.)	Pressure (kgf/cm ²)		Jet-Oxy	Gas Consumption (L/h)				Weight (g)	
				Oxygen	Gas		Pre-Oxy		Pre-Gas		Torch	Tip
							A-8	P-8	A-8	P-8		
1	0.7	3~7	600~700	2.0	0.2	650	285	1200	240	320	675	65
2	0.9	5~15	500~600	2.0	0.2	1050	310	1200	280	320		
3	1.1	10~20	400~500	2.5	0.25	1900	375	1425	340	380		
4	1.3	15~30	350~400	2.5	0.25	2600	400	1425	360	380		
5	1.6	25~50	300~350	3.0	0.3	4500	500	2000	450	500		
6	1.9	40~80	250~300	3.0	0.3	6500	500	2000	450	500		

- We have also tips for Ethylene Gas (E-8) and Natural Gas (N-8).
- Our all cutting tips are delivered after strict ignition test one by one.

HEAVY DUTY HAND CUTTING TORCH (TIP MIXING TYPE)

"Strong-25+" FOR OXY-ACETYLENE/OXY-PROPANE/OXY-ETHYLENE/OXY-NATURAL GAS 

COVERING A RANGE OF METAL THICKNESS UP TO 300mm(12")



Length = 550mm

Size	Orifice (φ mm)	Thickness to be cut (mm)	Cutting Speed (mm/min.)	Pressure (kgf/cm ²)		Jet-Oxy	Gas Consumption (L/h)				Weight (g)	
				Oxygen	Gas		Pre-Oxy		Pre-Gas		Torch	Tip
							A-3800	P-3500	A-3800	P-3500		
00	0.8	3~5	700~660	2.0	0.2	850	410	1200	370	300	950	110
0	1.0	5~10	660~550	2.0	0.2	1300	410	1200	370	300		
1	1.2	10~20	550~490	3.0	0.3	2500	480	1400	430	350		
2	1.4	15~30	490~400	3.0	0.3	3450	480	1400	430	350		
3	1.6	25~50	400~350	3.0	0.3	4500	480	1400	430	350		
4	1.9	40~80	350~320	4.0	0.4	8000	550	2200	500	550		
5	2.3	60~150	320~200	4.0	0.4	11000	690	2200	630	550		
6	2.7	120~200	200~150	4.0	0.4	16000	770	2200	700	550		
7	3.0	150~250	150~80	5.0	0.5	24000	1060	3400	960	850		
8	3.4	200~300	80~45	5.0	0.5	30000	1060	3400	960	850		

- We have also tips for Ethylene Gas (E-3840) and Natural Gas (N-3900).
- Our all cutting tips are delivered after strict ignition test one by one.

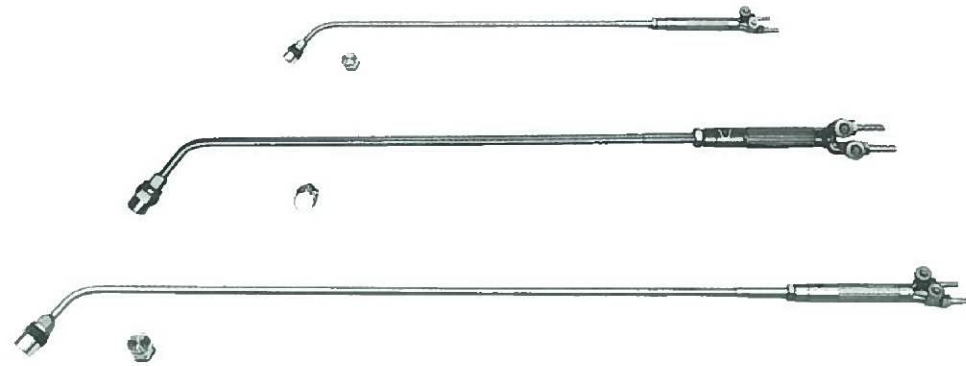
MULTI-FLAME HAND HEATING TORCHES FOR OXY-PROPANE/OXY-NATURAL GAS



Model 66

Model 67

Model 68



Model	Type	Tip No.	Orifice X Nos. of hole	Range (mm)	Pressure (kgf/cm ²)		Consumption (L/h)		Length (mm)	Weight (g)	
					Oxy	Propane	Oxy	Propane		Torch	Tip
66	2000/ capacity with 1 multi-flame tip	2000	0.9X21	5~15	3.0	0.3	7,000	1,800	680	860	55
67	5000/ capacity with 2 multi-flame tips	3500	1.1X25	5~20	4.0	0.4	9,000	2,200	1,040	1,330	120
		5000	1.3X25	5~30	4.0	0.4	10,000	2,500			
68	10000/ capacity with 2 multi-flame tips	7500	1.1X33	5~40	5.0	0.5	13,000	3,200	1,420	1,570	180
		10000	1.3X33	5~50	5.0	0.5	16,000	4,000			

HAND BURNERS FOR INDUSTRIES FOR PROPANE/NATURAL GAS

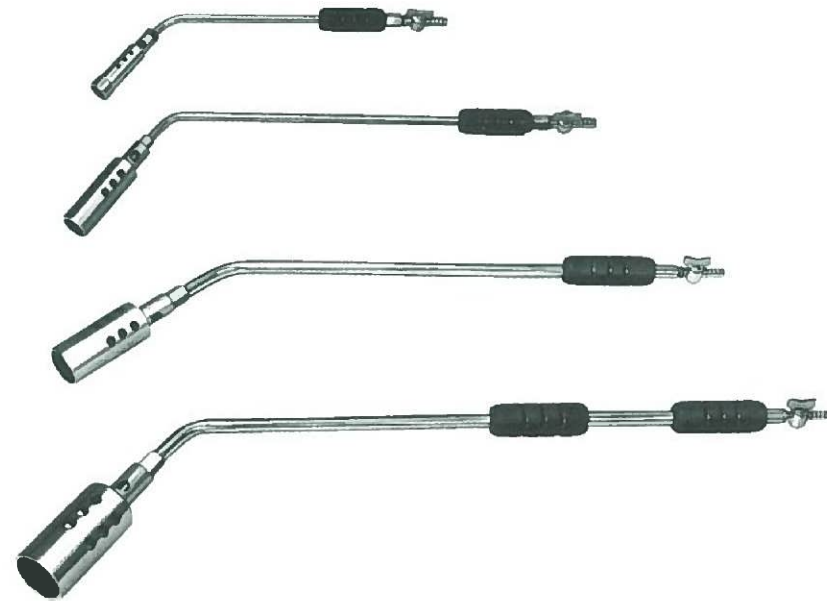


Model 69 Tiny Torch

Model 70 Small Torch

Model 71 Medium Torch

Model 72 Large Torch



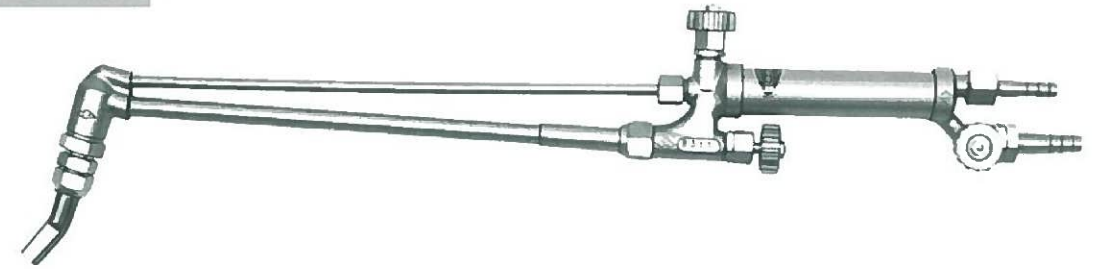
Model	Type	Orifice X Tip end dia. (φ mm)	Propane Pressure (kgf/cm ²)	Length incl. Tip (mm)	Weight incl. Tip (g)
69	Light duty	0.8X20	0.3	445	530
70	Light duty	0.9X30	0.4	650	710
71	Medium duty	1.1X40	0.5	850	1,480
72	Heavy duty	1.4X50	0.6	900	1,840

HAND GOUGING & SCARFING TORCHES FOR OXY-ACETYLENE/OXY-PROPANE



※Oxy-Natural Gas Torches are also available

Model 21 Gouging Torch



Length : 570mm

Tip No.	AG 1	AG 2	AG 3	
Orifice φ (mm)	1.0X2.5	1.3X3.2	1.6X4.0	
Gouging Speed (mm/min)	150~400	150~400	150~400	
Gouging Capacity	Width (mm)	5~9	7~10	9~13
	Depth (mm)	3~6	3~7	5~10
Recommended Pressure (kgf/cm ²)	Oxygen	3.0	4.0	5.0
	Fuel gas	0.3	0.4	0.5
Weight (g)	Torch	850		
	Tip	146		

Bent Gouging Tip



Model 24 Medium duty Scarfing Torch



Model 25 Heavy duty Scarfing Torch

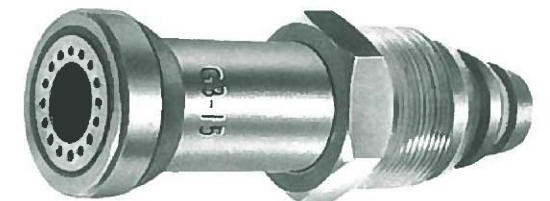


Model No.	24			25	
Torch Length (mm)	1,150			1,320	
Tip No.	ST-1	ST-2	ST-3	G3-15	
Orifice (mm)	6.0	7.0	8.0	15.0	
Scarfing Speed (mm/min)	10~13	10~13	10~13	12~15	
Scarfing Capacity	Width (mm)	20~33	30~40	40~60	70~85
	Depth (mm)	2~3	2~5	2~5	3~5
Recommended Pressure (kgf/cm ²)	Oxy	8	9	10	12
	Fuel gas	0.5	0.5	0.5	0.8
Weight (g)	Torch	1,800		2,400	
	Tip	142		468	

ST Multi-Flame Scarfing Tip



G3 Multi-Flame Scarfing Tip



Note : When ordering the above torches, please specify "Oxy-Propane" or "Oxy-Acetylene"



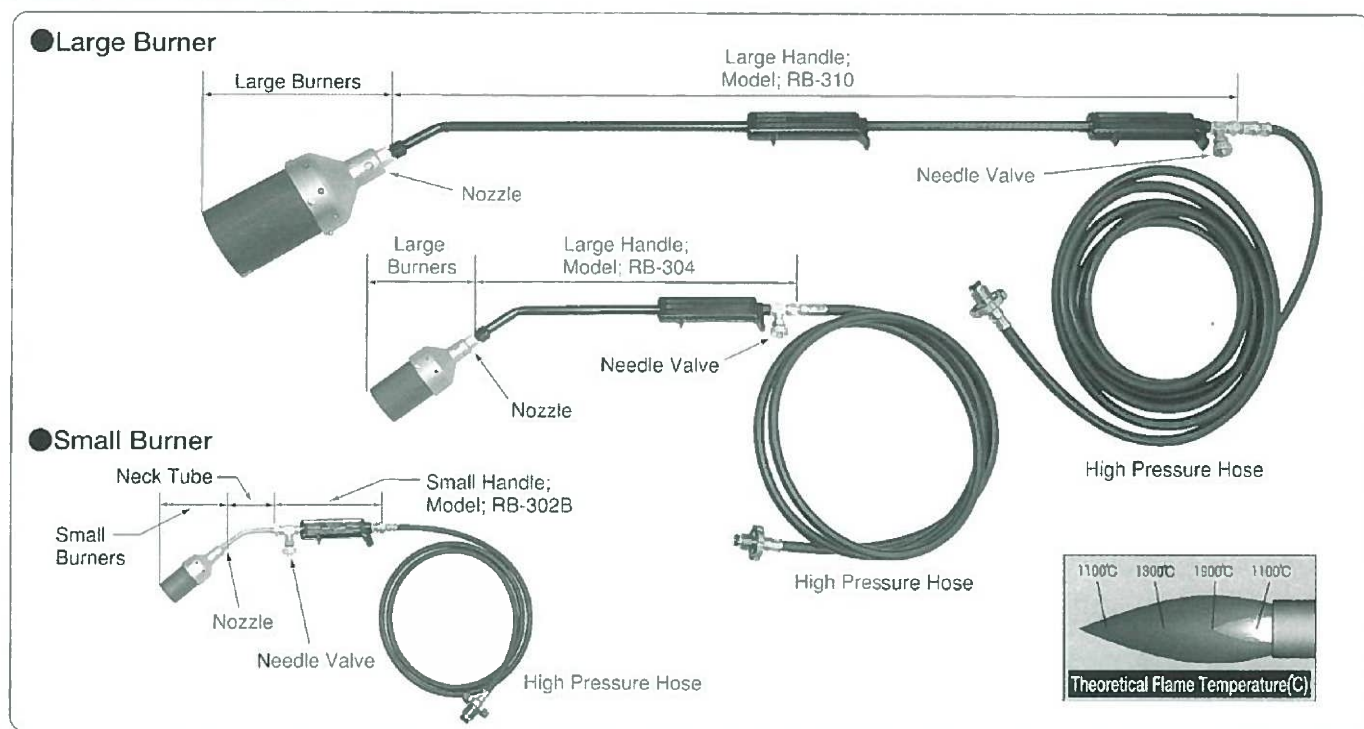
Features

- Can get 1200°C of high temperature flame only with LPG cylinder.
- Can use burners only to connect directly to LPG cylinder without using pressure regulator. (Use LPG at more than 2kgf/cm²)
- All parts connections are metal-to-metal contact without using sealing materials.
- High-Pressure Hose (RB-502) made with small diameter realizes flexibility to make operation smoothy.
- Small burner, RB-102 for food processing is made of stainless steel and aluminum to avoid rusting.

Usage

- Melting tar and asphalt · Pre-Heating for mold · Pre-Heating for welding · Roofing and Waterproofing
- Removing paint and rusting · Heating for piping, Brazing · Glass and Precious metal processing
- Browning foods · Roasting the soil and Burning weed and bush · Forest pests · Disinfection of cattle house
- Melting snow and ice

Example for Assembly



Specifications

※Nozzle is included in every burners

Small Handle (RB-302B)							
Small Burners Model No.	Burner Diameter (mm)	Gas Consumption g/h (2kgf/cm ²)	Flame Type	Weight (g)	Length (mm)	Main Material	Nozzle Ident. No.
RB-118	15	45	Needle	36	60	Brass	A
RB-119	17	83	Standard	44	64	Brass	B
RB-178	25	250	Blowlamp	92	90	Brass	H
RB-156	54	104	Flat	117	115	Brass/Steel	C
RB-144S	40	1330	Powerful	187	127	Steel & Aluminum	T
RB-102	40	1330	Powerful	160	127	Stainless Steel Aluminum	T

Small Handle (RB-302B)		
Neck Tube Model No.	Weight (g)	Length (mm)
RB-201	46	100
RB-202S	46	105
RB-203	46	75
RB-204	104	200

Large Handle (RB-304/RB-310)							
Large Burners Model No.	Burner Diameter (mm)	Gas Consumption g/h (2kgf/cm ²)	Flame Type	Weight (g)	Length (mm)	Main Material	Nozzle Ident. No.
RB-144L	40	1330	Powerful	191	129	Steel & Aluminum	F
RB-145	55	2680	Powerful	401	154		G
RB-185	85	5600	Powerful	940	216		R

Large Handle (RB-304/RB-310)		
Large Handle Model No.	Weight (g)	Length (mm)
RB-304	500	465
RB-310	960	1030

High Pressure Hose		
Model No.	Weight (g)	Length (mm)
RB-502H	360	2055
RB-503H	810	3055
RB-505H	1190	5055

Ordering Information

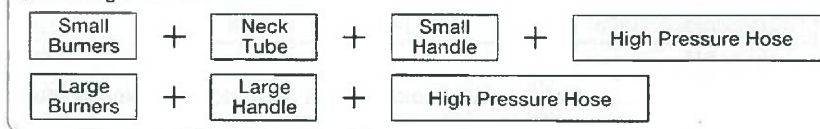
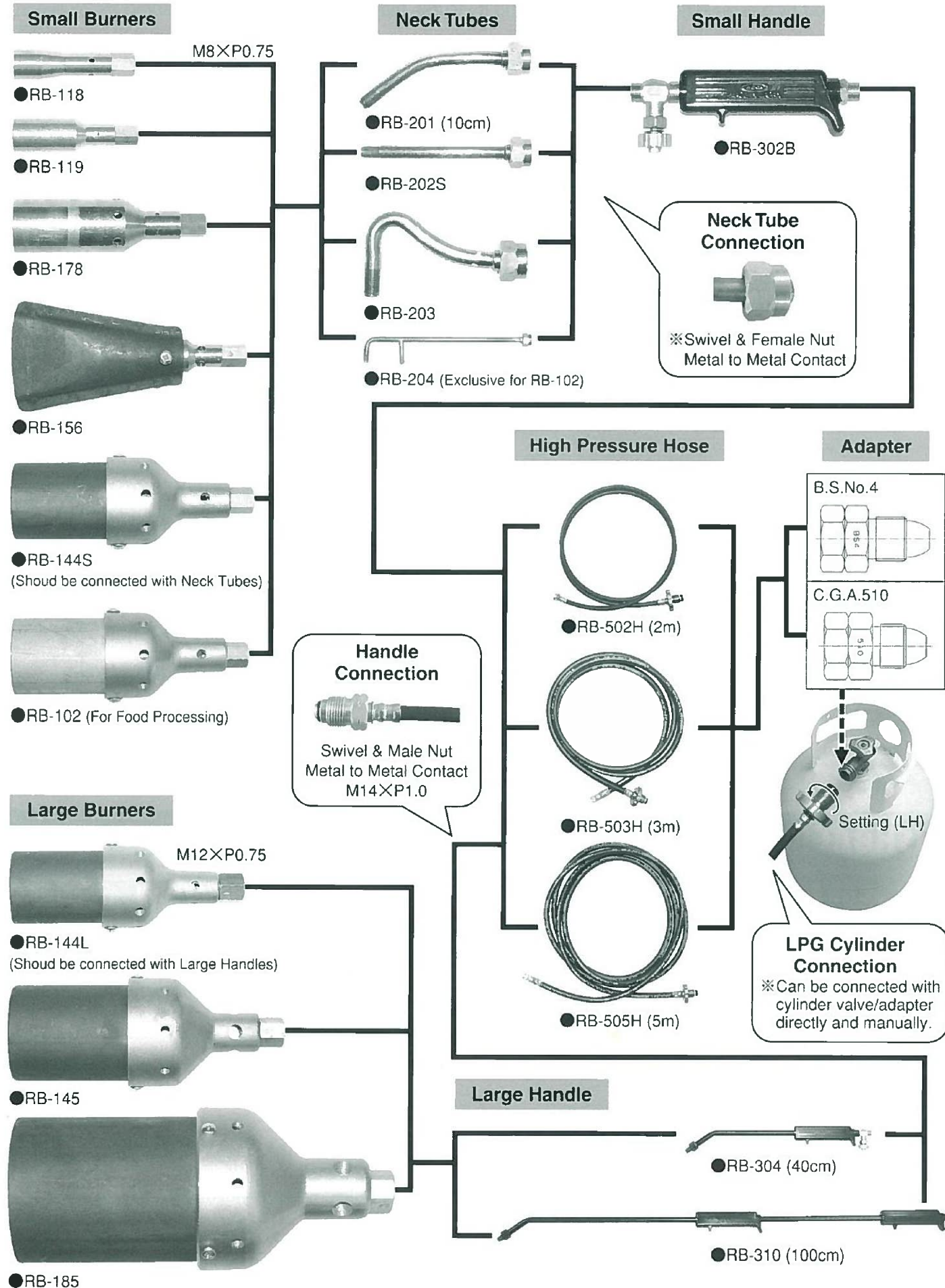


Chart of Assembly



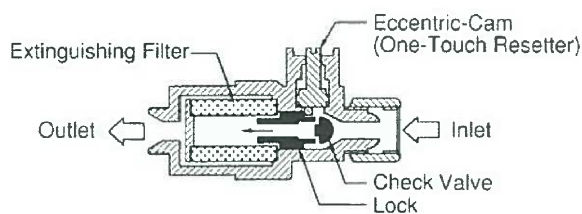
FLASHBACK ARRESTORS FOR REGULATOR

"SAVE-POINT-S" SERIES FOR ACETYLENE/PROPANE/NATURAL GAS/ETHYLENE/OXYGEN

The SAVE-POINT Series Flashback Arrestors are completely prevent any reverse flow, backfire or flashback caused by gas welding and cutting jobs, and it insures the safety of operators away from explosions or fire troubles by its highly mechanism.

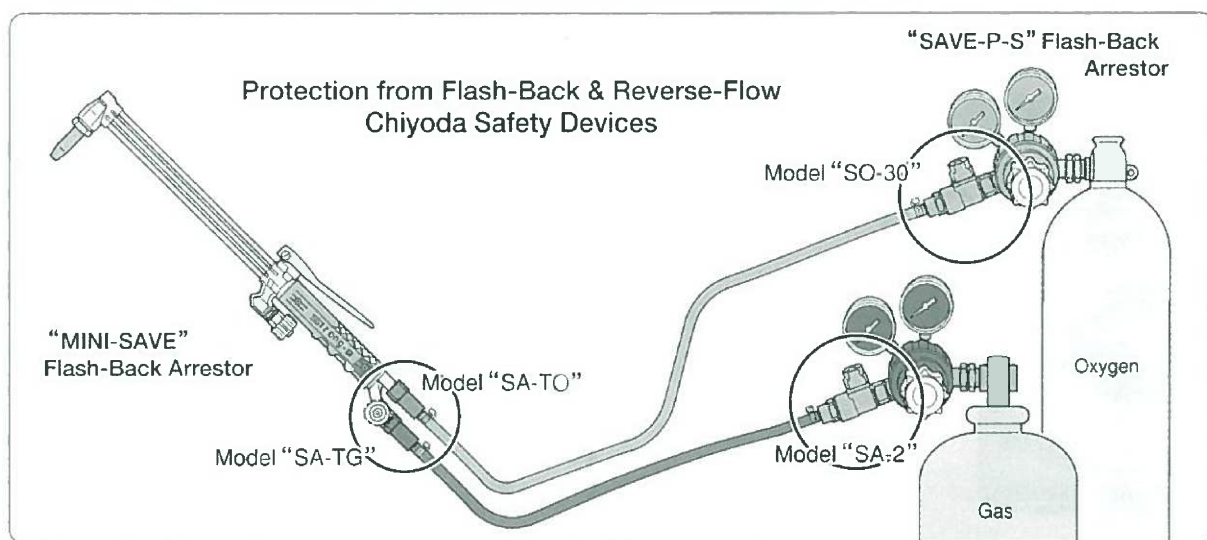
■Type SA-2 & SO-30

For mounting on a cylinder regulator or an outlet of pipeline.



■Specifications

Types	SA-2	SO-30
Applications	Acet. LPG, CNG, Ethylene	Oxygen
Working Pressure (kgf/cm ²)	1.3	10
Flowing Capacity (Nm ³ /h)	2	30
Setting Position	Regulator End	Regulator End
Inlet Connection	M16 P1.5(L)F	M16 P1.5(R)F
Outlet Connection	M16 P1.5(L)M	M16 P1.5(R)M
Length (mm)	76	76
Weight (g)	205	210

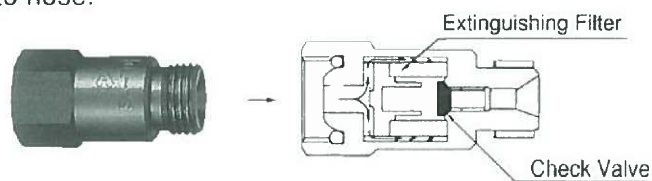


FLASHBACK ARRESTORS FOR TORCH END

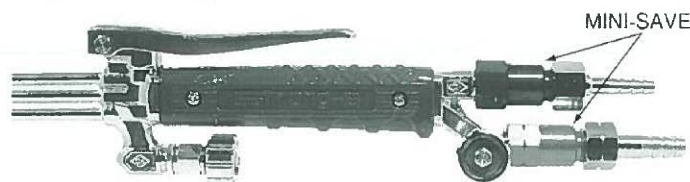
"MINI-SAVE" SERIES FOR ACETYLENE/PROPANE/NATURAL GAS/ETHYLENE/OXYGEN

■Type SA-TG & SA-TO / SAL-TG & SAL-TO

For mounting on a torch end or an intermediate of hose to hose.



Example for Using



■Specifications

Types	SA-TG	SAL-TG	SA-TO	SAL-TO
Applications	Acet. LPG, CNG, Ethylene		Oxygen	
Working Pressure (kgf/cm ²)	1.0		10	
Flowing Capacity (Nm ³ /h)	1.0	1.6	10	13
Setting Position	Torch End			
Connections Inlet	M16 P1.5(L)M		M16 P1.5(R)M	
Outlet	M16 P1.5(L)F		M16 P1.5(R)F	
Length (mm)	40	49	40	49
Weight (g)	30	38	30	38

FLASHBACK ARRESTORS FOR REGULATOR & HOSE TO HOSE

"FLAME-GUARD" SERIES FOR ACETYLENE/PROPANE/NATURAL GAS/ETHYLENE/OXYGEN

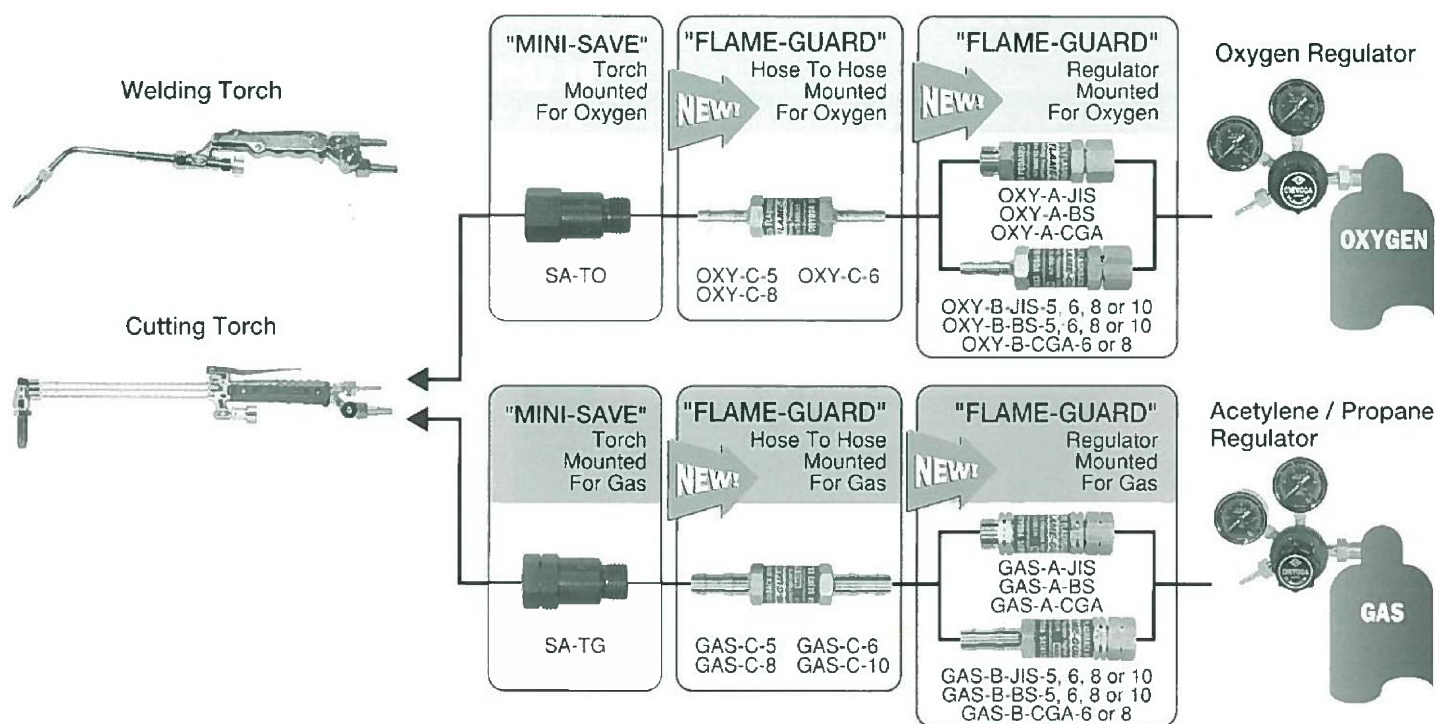
- Flame-Guard Series Flashback Arrestors are designed to be mounted to oxygen and acetylene/propane gas regulators or intermediately to hose & hose.
- No need any resetting after flashback.
- Flame-Guard Series are featured with check valves and fire-extinguishing filters to prevent reverse flow and backfire or flashback in order to protect operators from severe accidents by the explosion or fire troubles.

■Specifications

* HN=Hose Nipple

Caution: Hydrogen is prohibited to use on "FLAME-GUARD SERIES".

Oxygen Model	Type	Inlet Connect.	Outlet Connect.	Over Length (mm)	Weight (g)	Gas Model (Acetylene/Propane)	Type	Inlet Connect.	Outlet Connect.	Over Length (mm)	Weight (g)
Working Press. (Max. kgf/cm ²)						10 (Bar)					
Flowing Capacity (Max. L/H)						28,000					
Working Press. (Max. kgf/cm ²)						1 (Bar)					
Flowing Capacity (Max. L/H)						3,600					
Regulator Mounted	OXY-A-JIS	M16×1.5 RH(F)	M16×1.5 RH(M)	65	102	Regulator Mounted	GAS-A-JIS	M16×1.5 LH(F)	M16×1.5 LH(M)	65	102
	OXY-A-BS	BSP3/8" RH(F)	BSP3/8" RH(M)				GAS-A-BS	BSP3/8" LH(F)	BSP3/8" LH(M)		
	OXY-A-CGA	UNF9/16" RH(F)	UNF9/16" RH(F)				GAS-A-CGA	UNF9/16" LH(F)	UNF9/16" LH(F)		
Regulator Mounted	OXY-B-JIS-5	M16×1.5 RH(F)	φ5mm HN	87	91	Regulator Mounted	GAS-B-JIS-5	M16×1.5 LH(F)	φ5mm HN	87	91
	OXY-B-JIS-6		φ6.3mm HN				GAS-B-JIS-6		φ6.3mm HN		
	OXY-B-JIS-8		φ8mm HN				GAS-B-JIS-8		φ8mm HN		
	OXY-B-BS-6	BSP3/8" φ6.3mm HN	BSP3/8" LH(F)				GAS-B-BS-6	φ6.3mm HN			
	OXY-B-BS-8	φ8mm HN					GAS-B-BS-8	φ8mm HN			
	OXY-B-CGA-6	UNF9/16" φ6.3mm HN					GAS-B-CGA-6	UNF9/16" φ6.3mm HN			
OXY-B-CGA-8	RH(F) φ8mm HN	GAS-B-CGA-8	LH(F) φ8mm HN								
Hose To Hose Mounted	OXY-C-5	φ5mm Hose Nipple		103	52	Hose To Hose Mounted	GAS-C-5	φ5mm Hose Nipple		103	52
	OXY-C-6	φ6.3mm Hose Nipple					GAS-C-6	φ6.3mm Hose Nipple			
	OXY-C-8	φ8mm Hose Nipple					GAS-C-8	φ8mm Hose Nipple			
						GAS-C-10	φ10mm Hose Nipple				105



Note: In case of double or triple setting of flashback arrestor as above, please pay attention to the final flow rate as below.

Test Condition	Fluid	Final Flow Rate (Nm ³ /h)	
		Oxygen (10kgf/cm ²)	Gas (1kgf/cm ²)
Single Setting (5m Rubber Hose X 1PC.)		28 (ΔP=3kgf/cm ²)	3.6 (ΔP=0.6kgf/cm ²)
Double Setting (5m Rubber Hose X 2PCS.)		20 (ΔP=3kgf/cm ²)	2.2 (ΔP=0.6kgf/cm ²)
Triple Setting (5m Rubber Hose X 3PCS.)		15 (ΔP=3kgf/cm ²)	1.4 (ΔP=0.6kgf/cm ²)

FLASHBACK ARRESTORS FOR SCARFING TORCH

"SFST-02, SFG3-02" FOR OXYGEN USE ONLY



MINI-SAVE-LONG FOR FUEL GAS



SFG3-02 FOR OXYGEN

G3 SCARFING TORCH

Types	SFST-02	SFG3-02
Applications	Oxygen	
Working Pressure (kgf/cm ²)	15	
Flowing Capacity (Nm ³ /h)	150 or more	
Inlet/Outlet Connection	M16×P1.5 (R)	M20×P1.5 (R)
Length (mm)	108	127
Weight (g)	539	593

FLASHBACK ARRESTORS FOR MANIFOLD & PIPELINE (HIGH FLOW TYPE)

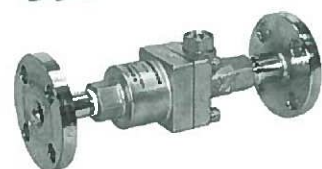
"SAVE-POINT-L" SERIES FOR ACETYLENE/PROPANE/NATURAL GAS/ETHYLENE/HYDROGEN



LA-8



LH-15



LP-8

* Flange connection is optional.

Specifications

Types	LA-8	LP-8	LH-15
Applications	Acetylene	LPG, CNG, Ethylene	Hydrogen
Working Pressure (kgf/cm ²)	1.3		
Flowing Capacity (Nm ³ /h)	8 P1=0.5k	8 P1=0.5k	20 P1=1.0k
Setting Position	Distribution Line, Manifold End		
Inlet Connection	1/2"PT (F)		
Outlet Connection	1/2"PT (F)		
Length (mm)	150		
Weight (kg)	1.8		

FLASHBACK ARRESTORS FOR MANIFOLD & PIPELINE (HIGH FLOW TYPE)

"SAVE-POINT-G" SERIES FOR ACETYLENE/PROPANE/NATURAL GAS/ETHYLENE/OXYGEN



SGS-20A (LPG)



SGS-25A (LPG)



SGS-25A (ACETYLENE)



SGS-50A (LPG)

* Flange connection is optional.

Types	SGS-20A	SGS-20A	SCS-C ₂ H ₄ -20A	SGS-25A	SGS-25A	SCS-C ₂ H ₄ -25A	SGS-50A	CY-OX-15A	SCS-OX-20A	SCS-OX-25A
Applications	Acetylene	LPG/CNG	Ethylene	Acetylene	LPG/CNG	Ethylene	LPG/CNG	Oxygen	Oxygen	Oxygen
Working Pressure (kgf/cm ²)	1.3	1.5	1.5	1.3	1.5	1.5	2	2	7	10
Flowing Capacity (Nm ³ /h)	15	15	12	30	30	30	60	30	60	150
Setting Position	Large-Flow Distribution Line, Manifold End									
Inlet Connection	3/4"PT(F)			1"PT(F)			2"PT(F)	1/2"PT(F)	3/4"PT(F)	1"PT(F)
Outlet Connection	3/4"PT(F)			1"PT(F)			2"PT(F)	1/2"PT(F)	3/4"PT(F)	1"PT(F)
Length (mm)	219	219	240	378	330	343	465	227	313	313
Weight (kg)	6.5	6.5	3.0	31	13	14.2	30	3	12	12

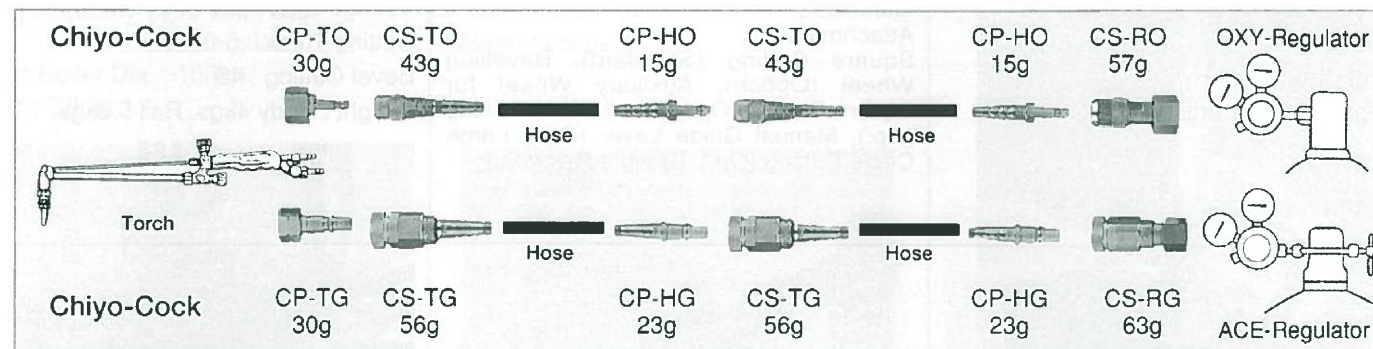
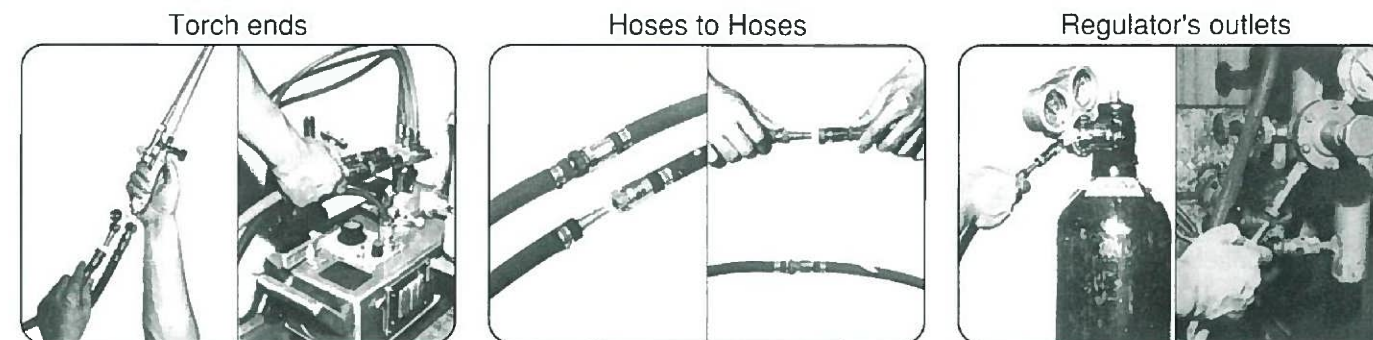
ONE TOUCH HOSE COUPLINGS

"CHIYO-COCK" SERIES



For an Instant Joining or Detaching of Welding Equipment

Example for using



Applicable hose size For Oxygen For Gas
 Chiyo-Cock: 1/4" · 5/16" 1/4" · 3/8"

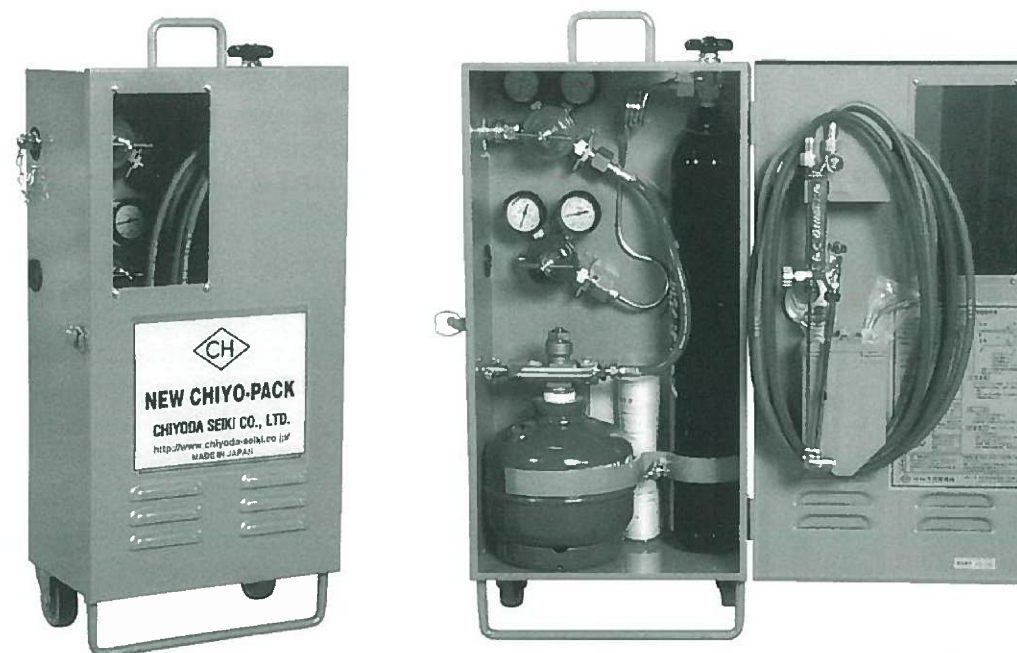
PORTABLE GAS WELDING/CUTTING STATION

"NEW CHIYO-PACK"



Completely Assembled All Necessary Welding/Cutting Equipment in Steel Box with Casters

Our "NEW CHIYO-PACK" Portable Welding/Cutting Station has 3.6 Liter Oxygen & Acetylene Cylinders and allows 1.5 hours for gas welding and 1 hour for cutting operation. Size: 730mm(H)×250mm(W)×215mm(D), Weight: 30kgs



Fireman's or Policeman's emergency appliance.



Building constructions



On-site and outdoor jobs

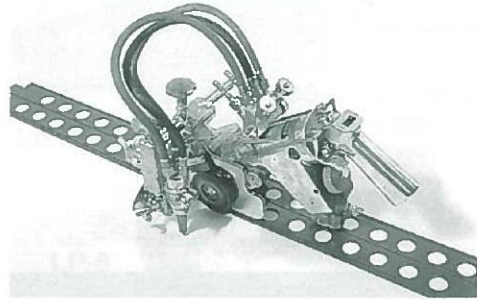


Single-Hand Operated Cutting Machine- **VIC-3**

Featuring compact, light weight construction for balance one-hand operation and used for straight-line, curve, circle and bevel welding edge and free-hand cutting.

The constant running in any operation by the adopted Variable Register obtains uniform cutting surfaces.

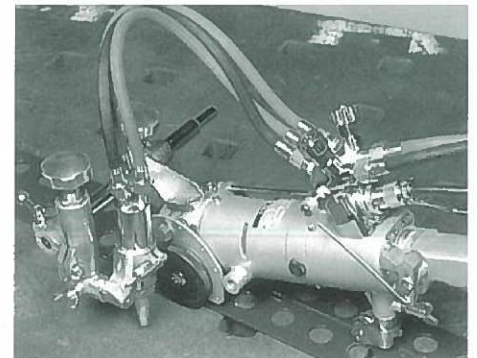
Specifications :
Voltage : AC 100V or 200V
Speeds : 100~1,000mm/min.
Cutting Thick. : 5~100mm
Bevel Cutting : 45°
Weight : Body 7.1kgs, Rail 3.2kgs



Single Hand Operated Cutting Machine- **VIC-4**

Straight handle type, compact and light weight construction for balanced single-hand operation in straight line, bevelling circle and free cutting.

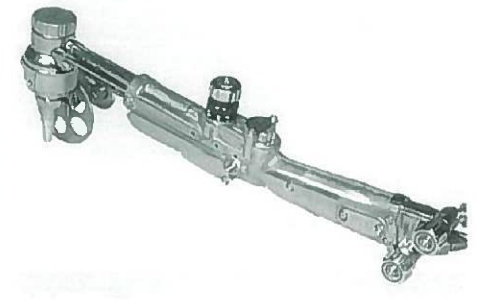
Specifications :
Voltage : AC 100V or 200V
Speeds : 50~1,000mm/min.
Cutting Thick. : 5~100mm
Circle Cutting Range : ϕ 60~1,200mm
Bevel Cutting : Max. 45°
Weight : 9.8kgs



Automatic Gas Cutting Tool- **VIC-7** (STRONG AUTO)

Small and light weight hand cutting torch having various efficient performances

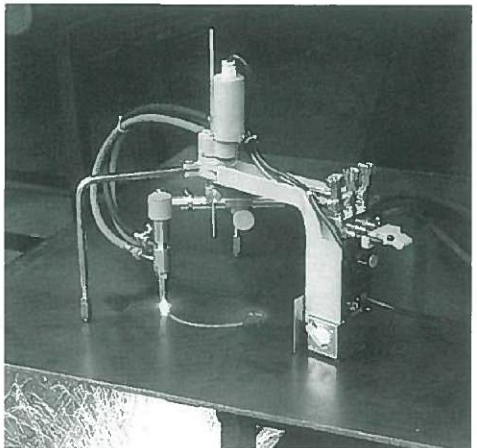
Specifications :
Voltage : AC 100V or 200V
Motor : DC12V, 7200r.p.m.
Speed reducer : 1/300
Speed Control : Transistor Control
Cutting Thick. : 5-50mm
Cutting Speed : 200-700mm/min.
Wheel Drive : Friction drive
Weight : 2.7kgs
Straight line/Curved line/Pipe/Circular/
Small circle/Square/Shaped steel/Bevel-
edge cutting are available with various at-
tachments.
Attachment :
Square Cutting (Standard), Bevelling
Wheel (Option), Auxiliary Wheel for
Square Cutting (Op.), Small Circle Cutting
(Op.), Manual Guide Lever (Op.), Large
Circle Cutting (Op.), Straight Rail (Op.)



Small Circle Cutting Machine- **Auto SPIDER-250**

Featuring very light weight body with quick action gas shut-off valve & magnet provide easy carrying & all position cutting.

Specifications :
Cutting Capacity : ϕ 30~250mm
Cutting Thick. : 4.5~30mm
Voltage : AC 100V or 200V
Weight : 5.8kgs



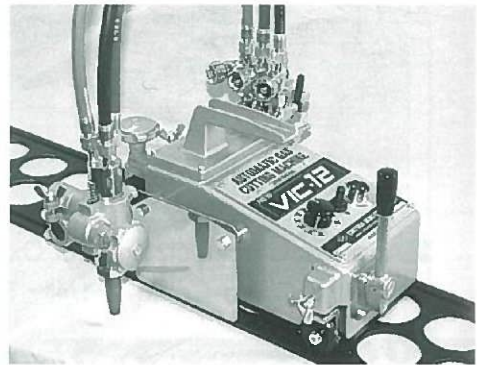
Straight Line Cutting Machine (Light Duty) - **VIC-12**

Featuring small and light weight die-cast body with carrying handle for easy and quick movement of machine to another place.

Install unique "PI-SHUTTER" quick action gas saving shut-off valve as a standard accessory.

No more time adjustments of consuming flame and inconsistent cutting quality.

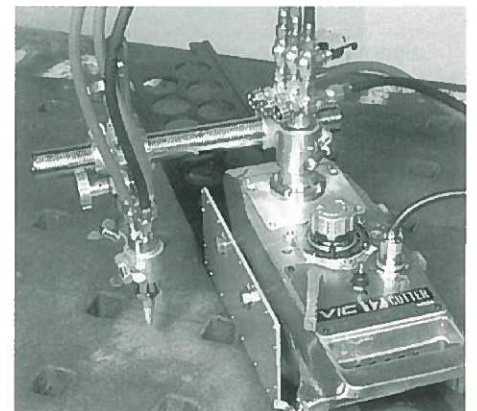
Specifications :
Voltage : AC 100V or 200V
Cutting Thick. : 5-60mm
Bevel Cutting : 45°
Weight : Body 4kgs, Rail 5.3kgs



Straight-Line Cutting Machine (Heavy Duty) - **VIC-17**

Strong and light-weight structure assure perfect portability and easy handling for heavy duty job. Install unique "PI-SHUTTER" quick action gas saving shut-off valve.

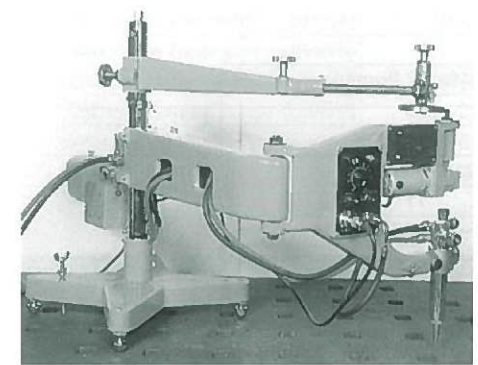
Specifications :
Voltage : AC 100V or 200V
Speeds : 80~800mm/min.(50HZ)
100~1,000mm/min.(60HZ)
Cutting Thick. : 5~150mm
Weight : Body 11.5kgs, Rail 5.3kgs
Attachment for circle cutting & X,V,Y bevel cutting and dual torches are available as option.



Automatic Shape Cutting Machine- **VIC-22**

Steel template type, operation panel in front.

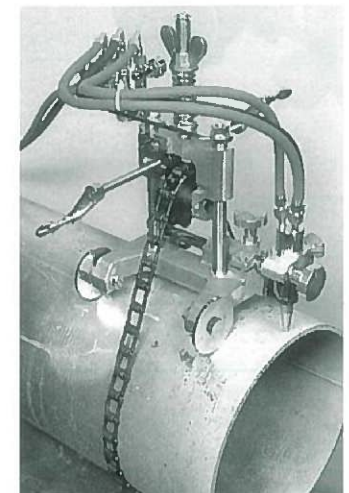
Specifications :
Voltage : AC 100V or 200V
Speeds : 100-1,000mm/min.
Cutting Thick. : 3~100mm
Cutting Range
Circle Cutting : ϕ 30~700mm
(Standard)
: ϕ 600~1,700
(Using Attachment)
Cutting Accuracy : \pm 0.5mm over
500mm Dia.
Magnet Roller Dia. : 10mm
Weight : 33kgs



Manual Operation Pipe Cutting Machine- **VIC-65E**

4 wheel type manual pipe cutting machine with chain.

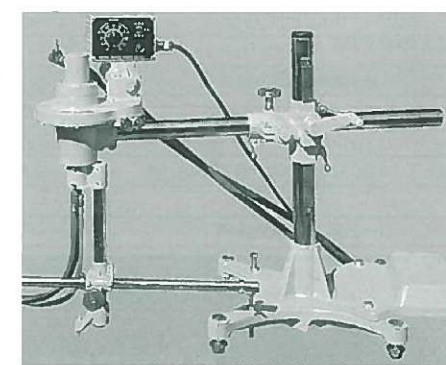
Specifications :
Pipe Diameter : 100~600mm (Standard)
Cutting Thick. : 5~50mm
Edge Shape : I or V
Bevel Angle : Up to 45°
Weight : 9kgs



Large Circule Cutting Machine- **VIC-32**

Dedicated circle cutting machine, also provides bevel cutting & horizontal position cutting.

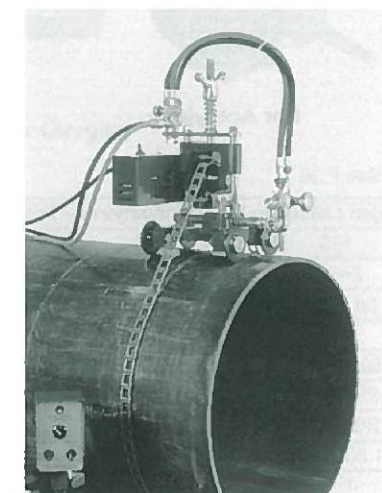
Specifications :
Voltage : AC 100V or 200V
Speeds : 100-850mm/min.
(S.C.R. Control)
Cutting Diameter : ϕ 30~600mm
(Standard)
Cutting Thick. : 5~50mm
Bevel Cutting : 45°
Weight : 25kgs



Automatic Gas Pipe Cutting Machine- **VIC-66E**

4 wheel type automatic pipe cutting machine with chain.

Specifications :
Voltage : AC 100V or 200V
Cutting Thick. : 5~50mm
Speeds : 100~600mm/min.
Pipe Diameter : 150~600mm
Bevel Angle : Up to 45°
Weight : 14kgs

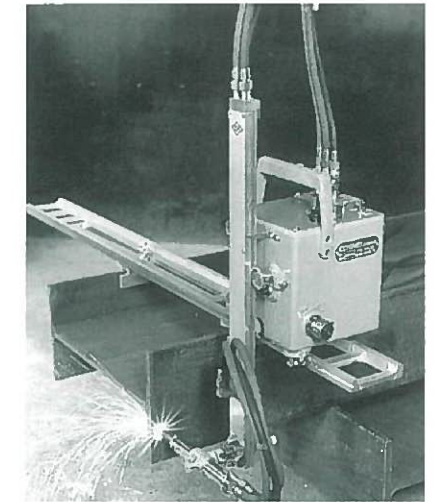


Portable Automatic Shape Steel Flame Cutter- **COSMO Junior-Z**

Most famous & popular H-beam cutting machine in the world.

Specifications :
Voltage : AC 100V or 200V
Speeds : 0~800mm/min.
Cutting Thick. : 3~25mm
Bevel Cutting : 45°

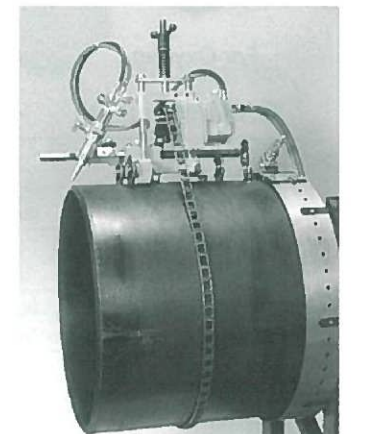
TYPE	CUTTING RANGE(MM)		RAIL LENGTH(M)	WEIGHT (KG)
	WEB	FLANGE		
F-300	150-600	100-300	1.2	12.8
F-400	150-900	100-400	1.5	15.6
F-600	150-1700	100-600	2.3	16.2



Automatic Gas Pipe Cutting Machine- **VIC-67**

4 wheel type automatic pipe cutting machine with chain suitable for large pipes.

Specifications :
Voltage : AC 100V or 200V
Cutting Thick. : 5~50mm
Speeds : 100~700mm/min.
Pipe Diameter : 150~600mm (D-600)
*Optionals for large diameter pipes
• D-900 (Max.pipe ϕ 900mm)
• D-1200 (Max.pipe ϕ 1200mm)
• D-1500 (Max.pipe ϕ 1500mm)
Bevel Angle : Up to 45°
Weight : 15kgs



"VICTORY" SERIES



"VICTORY" Regulators—single stage with easy to read 60mm ϕ gauges.
For general gas welding/heating and cutting operations, these regulators feature greater flows and accuracy, more economy, greater safety and easy maintenance.



For Oxygen



For Acetylene

Specifications ※Inlet connection: See P.36

Applicable Gas	Oxygen / Nitrogen	Acetylene / Propane
Max. Inlet Pressure (kgf/cm ²)	165	25
Delivery Pressure (kgf/cm ²)	2~15	0.2~1.5
Standard Flow Rate (Nm ³ /h)	60 (at 5kgf/cm ²)	5 (at 0.5kgf/cm ²)
Max. Flow Rate (Nm ³ /h)	130	11
Inlet Pressure Gauge (kgf/cm ²)	0~250 (3,500lb/in ²)	0~25 (350lb/in ²)
Delivery Pressure Gauge (kgf/cm ²)	0~25 (350lb/in ²)	0~2 (40lb/in ²)
Inlet Connection	JIS, BS, CGA, DIN	JIS, BS, CGA, DIN
Outlet Connection	M16×P1.5(R)+hose nipple	M16×P1.5(L)+hose nipple
Weight (kg)	1.33	1.08

CYLINDER REGULATORS
"NEWASTER" SERIES



For Oxygen



For Acetylene



For Propane

Specifications ※Inlet connection: See P.36

Applicable Gas	Oxygen / Nitrogen	Acetylene / Propane	Hydrogen / Helium
Max. Inlet Pressure (kgf/cm ²)	165	25	165
Delivery Pressure (kgf/cm ²)	2~15	0.2~1.5	2~15
Standard Flow Rate (Nm ³ /h)	35 (at 5kgf/cm ²)	5 (at 0.5kgf/cm ²)	70 (at 5kgf/cm ²)
Max. Flow Rate (Nm ³ /h)	100	11	200
Inlet Pressure Gauge (kgf/cm ²)	0~250 (3,500lb/in ²)	0~25 (350lb/in ²)	0~250 (3,500lb/in ²)
Delivery Pressure Gauge (kgf/cm ²)	0~25 (350lb/in ²)	0~3 (40lb/in ²)	0~25 (350lb/in ²)
Inlet Connection	JIS, BS, CGA, DIN	JIS, BS, CGA, DIN	JIS, BS, CGA, DIN
Outlet Connection	M16×P1.5(R)+hose nipple	M16×P1.5(L)+hose nipple	M16×P1.5(L)+hose nipple
Weight (kg)	1.18	1.08	1.08

"MODEL 2001" SERIES



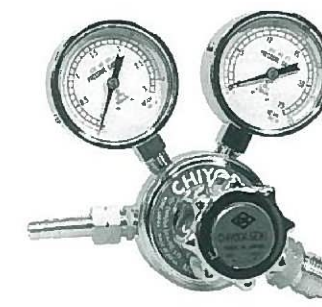
For O₂, N₂, Ar, H₂, He, CO₂



Straight Inlet Type for O₂



For Acetylene



For Propane

Specifications ※Inlet connection: Please see P.36

Applicable Gas	Oxygen / Nitrogen	Acetylene / Propane	Hydrogen / Helium	220kg for O ₂ ,N ₂ ,Ar(H ₂ ,He)
Max. Inlet Pressure (kgf/cm ²)	165	25	165	220
Delivery Pressure (kgf/cm ²)	2~15	0.2~1.5	2~15	2~15
Standard Flow Rate (Nm ³ /h)	60 (at 5kgf/cm ²)	7 (at 0.5kgf/cm ²)	120 (at 5kgf/cm ²)	60 (120)
Max. Flow Rate (Nm ³ /h)	130	18	260	130 (260)
Inlet Pressure Gauge (kgf/cm ²)	0~250 (3,500lb/in ²)	0~25 (350lb/in ²)	0~250 (3,500lb/in ²)	0~350 (5,000lb/in ²)
Delivery Pressure Gauge (kgf/cm ²)	0~25 (350lb/in ²)	0~3 (40lb/in ²)	0~25 (350lb/in ²)	0~25 (350lb/in ²)
Inlet Connection	JIS, BS, CGA, DIN	JIS, BS, CGA, DIN	JIS, BS, CGA, DIN	JIS, BS, CGA, DIN
Outlet Connection	M16×P1.5(R) + hose nipple	M16×P1.5(L) + hose nipple	M16×P1.5(L) + hose nipple	M16×P1.5(R) or (L)
Weight (kg)	1.4	1.4	1.4	1.4

CYLINDER REGULATORS
"MODEL 2012" SERIES



The Model 2012 single stage gas regulator meets industry's demand of compact design and economy, manufactured carefully from the best selected materials.

Model 2012 regulator can be relied upon to meet your pressure control demand with best cost performance !!



For Oxygen

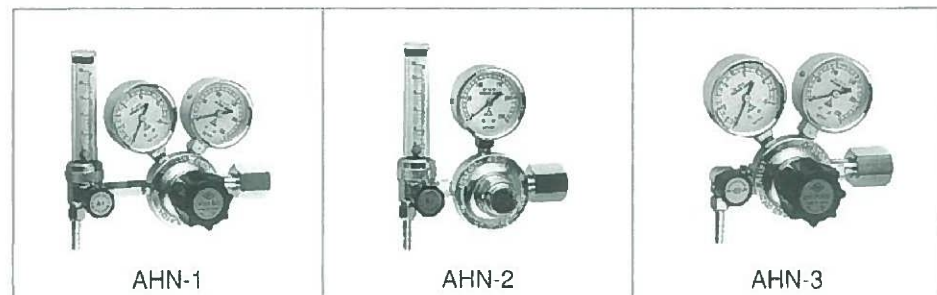


For Acetylene

Specifications

Applicable Gas	Oxygen / Nitrogen	Acetylene / Propane
Max. Inlet Pressure (kgf/cm ²)	165	25
Max. Working Pressure (kgf/cm ²)	9.9	0.98
Standard Flow Rate (Nm ³ /h)	38 (P ₂ =5kg/cm ²)	10 (P ₂ =0.5kg/cm ²)
Inlet Pressure Gauge (kgf/cm ²)	0~250 (3500lb/in ²)	0~40 (560lb/in ²)
Delivery Pressure Gauge (kgf/cm ²)	0~25 (350lb/in ²)	0~2 (30lb/in ²)
Inlet Connection	JIS, B.S., CGA, DIN, etc.	
Outlet Connection	M16×P1.5(R)+hose nipple	M16×P1.5(L)+hose nipple
Weight (kg)	1.3	1.28

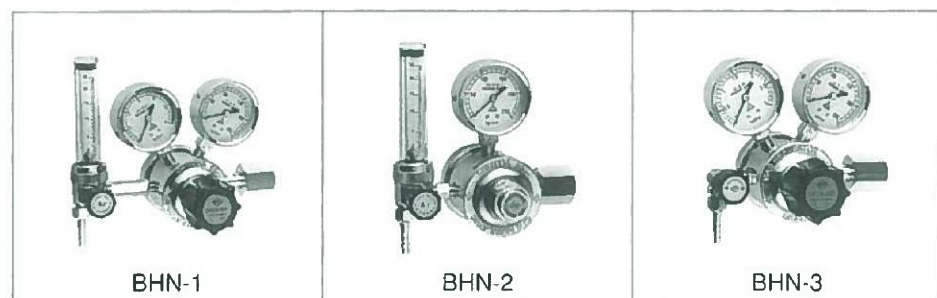
AH series regulators are compensated (balanced) to provide constant delivery pressure and flow regardless of decaying inlet pressure as same as two-stage regulator.



Types	AHN-1	AHN-2	AHN-3
Applicable Gases	Ar, N ₂ , O ₂ , He etc.		
Body Material	Chrome plated die forged brass		
Inlet P.(kgf/cm ²)	165		
Delivery P.(kgf/cm ²)	1~6	1.5	1~6
Max. Flow Rate(NL/min)	100	50	100
Flowmeter(NL/min)	2~25	2~25	—
Weight(kg)	1.5	1.2	1.3

※AHN-2 Secondary pressure is fixed.

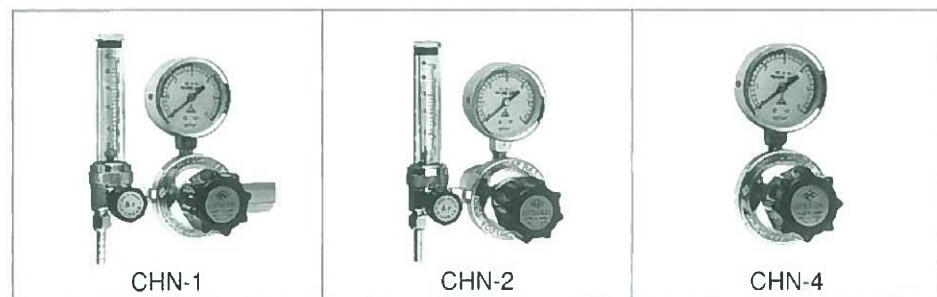
BH series two-stage regulators provide a constant no-fluctuating gas flow from start to finish of your operations. Once the working pressure is fixed, no further attention is necessary.



Types	BHN-1	BHN-2	BHN-3
Applicable Gases	Ar, N ₂ , O ₂ , H ₂ , He etc.		
Body Material	Chrome plated die forged brass		
Inlet P.(kgf/cm ²)	165		
Delivery P.(kgf/cm ²)	1~3	1.5	1~3
Max. Flow Rate(NL/min)	100	50	100
Flowmeter(NL/min)	2~25	2~25	—
Weight(kg)	2.0	1.8	1.9

※BHN-2 Secondary pressure is fixed.

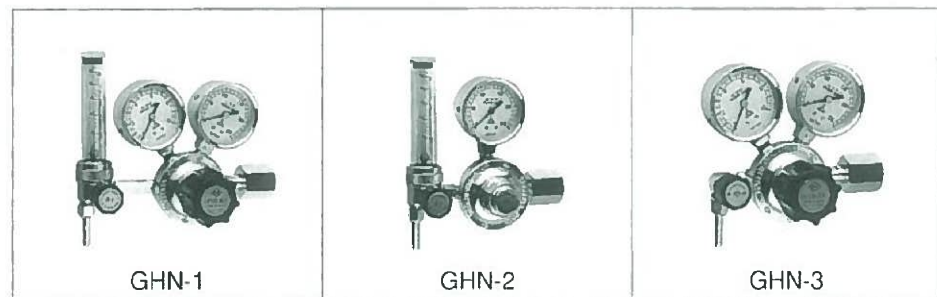
CH series pipeline regulators are designed for outlet stations, suitable for optimum control and delivery pressure far from central gas manifolds.



Types	CHN-1	CHN-2	CHN-4
Applicable Gases	Ar, N ₂ , O ₂ , CO ₂ , C ₂ H ₂ , H ₂ , He etc.		
Body Material	Chrome plated die forged brass		
Inlet P.(kgf/cm ²)	10		
Delivery P.(kgf/cm ²)	1~3		
Max. Flow Rate(NL/min)	30		
Flowmeter(NL/min)	2~25	2~25	—
Weight(kg)	1.2	1.2	0.8

※"CHN-4" Available for pannel setting.

GH series single stage regulators are designed for economy and popular applications.



Types	GHN-1	GHN-2	GHN-3
Applicable Gases	Ar, N ₂ , O ₂ , H ₂ , He etc.		
Body Material	Chrome plated die forged brass		
Inlet P.(kgf/cm ²)	165		
Delivery P.(kgf/cm ²)	1~6	1.5	1~6
Max. Flow Rate(NL/min)	100	50	100
Flowmeter(NL/min)	2~25	2~25	—
Weight(kg)	1.5	1.2	1.3

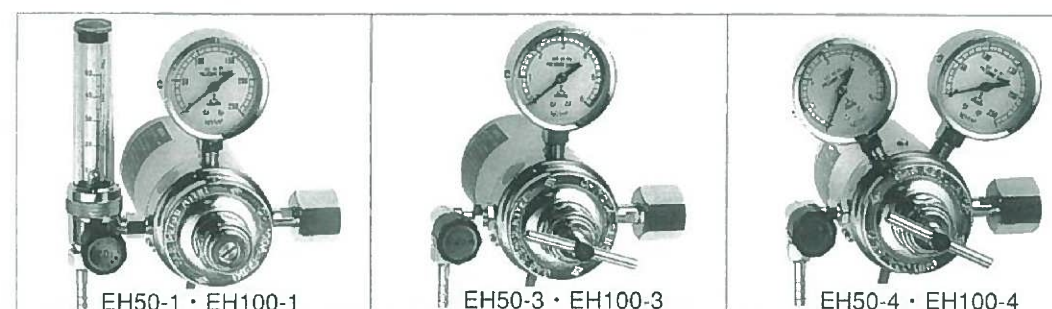
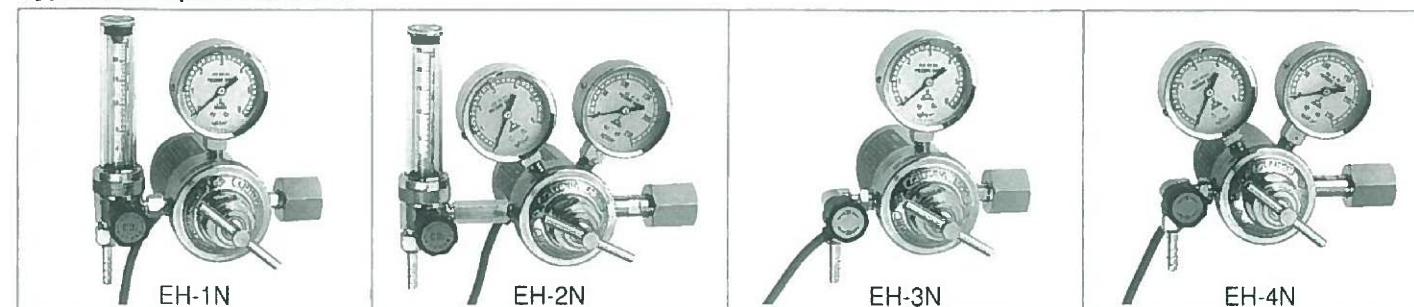
※GHN-2 Secondary pressure is fixed.

- ※Stainless-steel made Diaphragm is used for Helium & Hydrogen Gases.
- ※Stainless-steel made Body & Parts are also available as "SS" models.
- ※Please make sure your using gas name in your ordering.

High flows of CO₂ lead to the formation of dry ice crystals inside regulator orifices. These crystals reduce or stop flows completely.

EH series electrically heated, thermostatically controlled, regulator prevent internal dry ice accumulations and freeze-up inside orifices.

Types and Specifications:



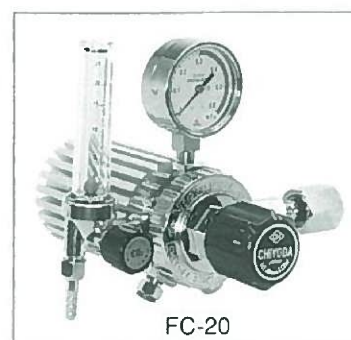
Features:

- * Attached thermal seal shows the temperature (50°C) of heater.
- * Built-in over heat protector Available for 5kgf/cm² delivery pressure. (EH50 and EH100 series).

Types	EH-1N	EH-2N	EH-3N	EH-4N	EH50-1	EH50-3	EH50-4	EH100-1	EH100-3	EH100-4
Applicable Gas	CO ₂ (Non-syphon cylinder)									
Max. Inlet Pressure (kgf/cm ²)	165									
Delivery Pressure (kgf/cm ²)	1~3				3(Fixed)	1~3		3(Fixed)	1~3	
Max. Flow Rate (NL/min)	25				70			120		
Inlet P. Gauge (kgf/cm ²)	No gauge	0~250	No gauge	0~250	0~250	No gauge	0~250	0~250	No gauge	0~250
Delivery P. Gauge (kgf/cm ²)	0~6				No gauge	0~6	0~6	No gauge	0~6	0~6
Flowmeter (NL/min)	2~25		No flowmeter		5~50		No flowmeter		10~100	
Electric Source	AC-110/220V 50/60Hz Cord length:2m									
Heater Capacity	190W				380W			570W		
Weight (kg)	1.8	2.06	1.51	1.88	3.05	2.8	2.85	3.1	2.8	2.85

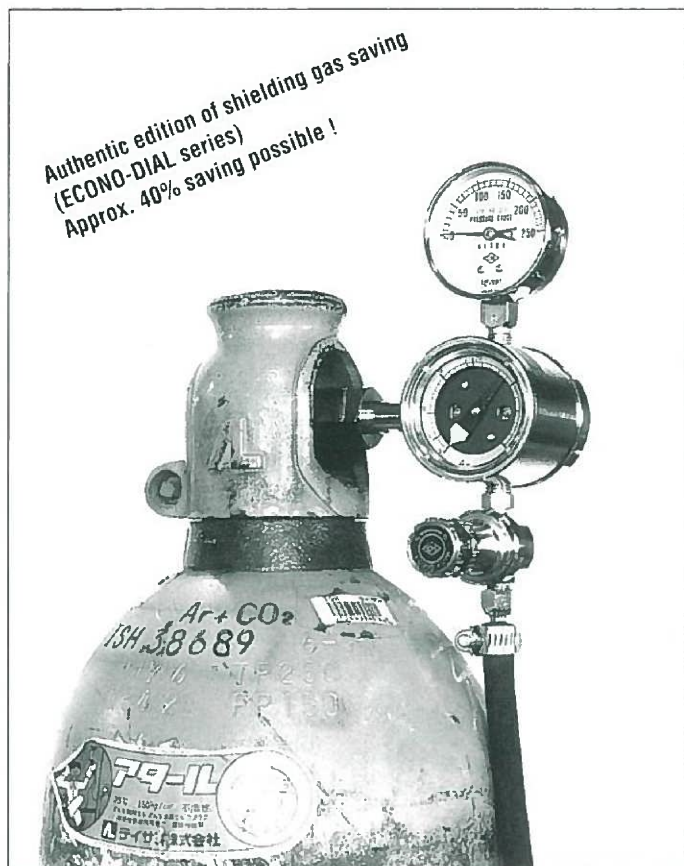
NON-HEATER CYLINDER REGULATOR
"FC-20" FOR CO₂ GAS

MODEL:FC-20 is a pressure regulator for CO₂ gas featured with an aluminum made heat exchanger to prevent internal dry ice accumulations and freeze-up inside orifices, and also it is featured with a two stage pressure control structure for stable gas supply.



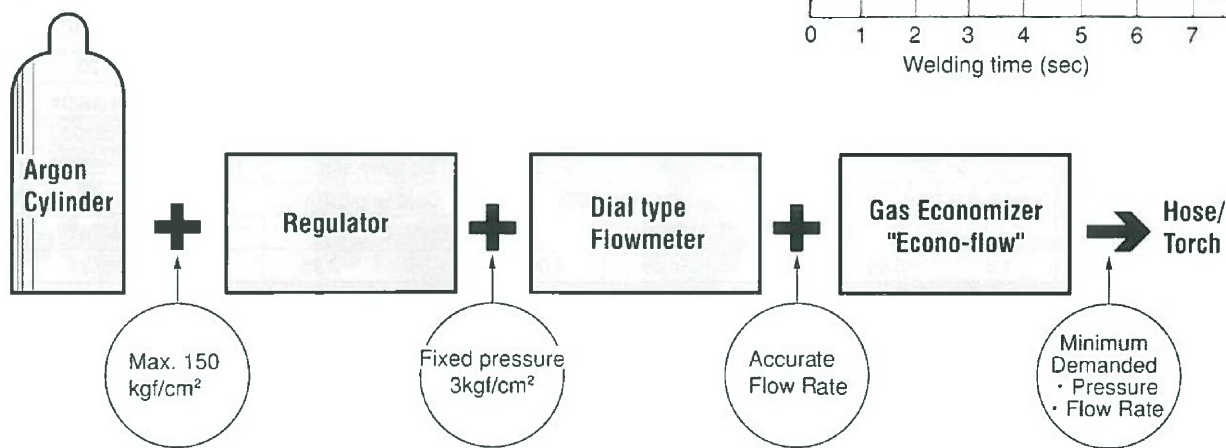
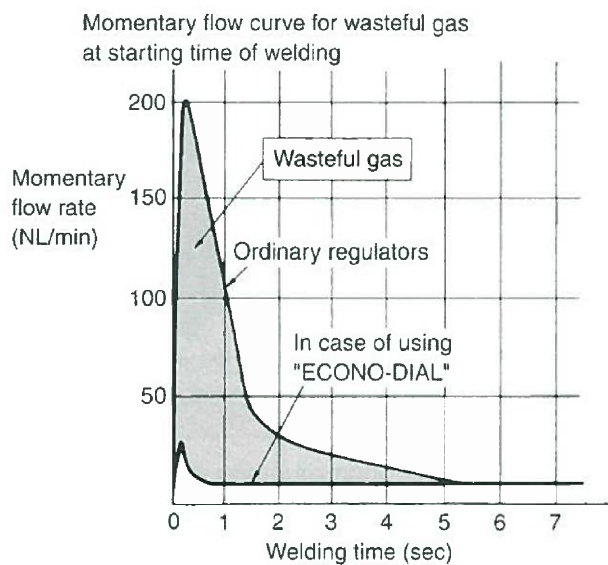
Model	FC-20
Applicable Gas	CO ₂ (Non-syphon cylinder)
Inlet Pressure (kgf/cm ²)	15~70
Delivery Pressure (kgf/cm ²)	1.5~3
Max. Flow Rate (NL/min)	25
Inlet P. Gauge (kgf/cm ²)	None
Delivery P. Gauge (kgf/cm ²)	0~6
Flowmeter (NL/min)	2~25
Working Temperature (°C)	-40~+40
Weight (kg)	2.7

Authentic edition of shielding gas saving (ECONO-DIAL series) Approx. 40% saving possible!

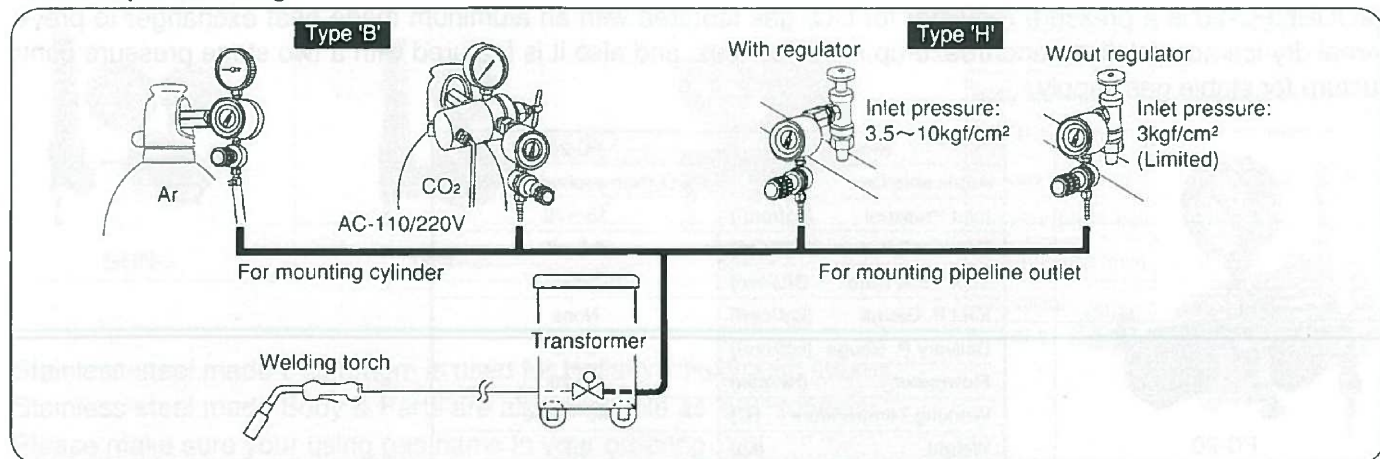


In shielding gas feed method, normally we are using conventional pressure regulators and flowmeters in TIG, MIG and CO₂ Arc welding, but in this method, a much volume of wasteful gas is discharged in a few seconds of at start of welding. In addition to poor efficiency, it adversely affects the welding surfaces and may spoil welding qualities.

"ECONO-DIAL" has been developed to minimize discharge of wasteful gas. It keeps gas flow at constant rate as from start of welding and assures smooth arc start and energy saving without causing deterioration of welding qualities.



Example for using



Economizing Test

Comparing the "ECONO-DIAL" with an ordinary flowmeter regulator in the following testing conditions, the merit table shows about 22 to 62% of shielding gas have been saved in 10 seconds at the start of welding.

Testing conditions

1. Time of welding: 10 seconds
2. Length of welding cable: 10 meters with torch
3. Delivery pressure: 3kgf/cm²
4. Hose inside diameter: 1/4"(6.35mm)

NEW ECONO-DIAL for STATION OUTLET


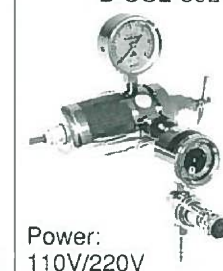


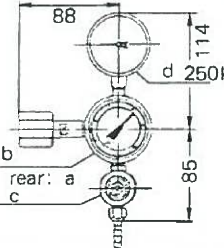
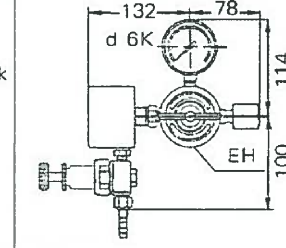
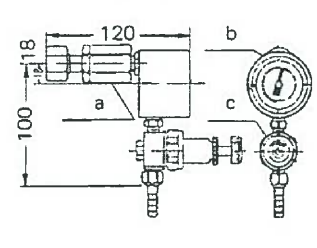
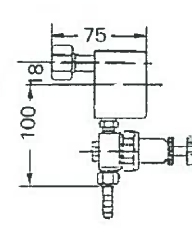
※ Compact size with built-in economizer and light weight with aluminum body ensure eternal economization for shielding gas.



H-Ar/CO₂ (with mini-regulator) H-Ar/CO₂ (without mini-regulator)

Merit table

Flowmeter set value at welding start (L/min.)	Rubber hose length (Meter)	Kinds of Regulator	Consumptions (cc/10sec.)	Economization (cc/10sec.)
Ar Welding	3	Ordinary type w/o Econo-flow	1,910	1,030 (53.9%)
		ECONO-DIAL	880	
5	10	Ordinary type w/o Econo-flow	2,390	1,494 (62.5%)
		ECONO-DIAL	896	
10	3	Ordinary type w/o Econo-flow	2,190	600 (27.4%)
		ECONO-DIAL	1,590	
10	10	Ordinary type w/o Econo-flow	2,546	875 (34.4%)
		ECONO-DIAL	1,671	
CO ₂ Welding	10	Ordinary type w/o Econo-flow	3,283	933 (28.4%)
		ECONO-DIAL	2,350	
15	20	Ordinary type w/o Econo-flow	3,750	1,187 (31.6%)
		ECONO-DIAL	2,563	
20	10	Ordinary type w/o Econo-flow	4,050	905 (22.3%)
		ECONO-DIAL	3,145	
20	20	Ordinary type w/o Econo-flow	4,440	1,135 (25.5%)
		ECONO-DIAL	3,305	

Ar regulator	CO ₂ regulator	Station outlet flowmeters	
B-AR-15L B-AR-30L B-AR-50L	B-CO ₂ -30L B-CO ₂ -50L	(with mini-regulator) H-AR-15L H-AR-30L H-AR-50L	(without mini-regulator) H-AR-15L H-AR-30L H-AR-50L H-CO ₂ -30L H-CO ₂ -50L
 2.1kg	 2.6kg	 1.3kg	 1.1kg
			

a: mini-regulator b: dial flow-meter c: econo-flow d: pressure gauge

"EXCELLENT MARK II" SERIES



■Applications

Instrument Analysis Carrier Gases
Semiconductor Manufacturing Gases
Poisonous & corrosive gases

■Quality & Grade

Ex-mk II Series are consisted in three grades, such as G1, G2 and G3.
Each grade product is constructed under careful consideration about the construction, materials, cleaning, assembly, performance, inspection and packing.

Grade	G1	G2	G3
Helium leak rate	$\leq 1 \times 10^{-8}$ Acc/sec.	$\leq 1 \times 10^{-7}$ Acc/sec.	Compressed He 12hours
Connections	1/4VCR or Tube	Screw in	Screw in
Cleaning	Two-steps ultrasonically cleaning		
Assembling	In a Class 1000 Clean room		
Material	Stainless steel 316		
Packaging	Packed in a polyethylene film under N ₂		

Single Stage Regulators

EX-20mk II G1



EX-100mk II G3



Two Stage Regulators

EX-300mk II G2



EX-400mk II G3



■Specifications

Models	EX-20mk II	EX-100mk II	EX-300mk II	EX-400mk II
Max. Inlet Pressure (kgf/cm ²)	220	220	220	220
Max. Delivery Pressure (kgf/cm ²)	10	10	6	6
Normal Flow Rate (NL/min)	20	100	20	100
Max. Flow Rate (NL/min)	50	150	30	150
Flow Coefficient (CV=)	0.05max	0.05max	0.05max	0.05max
Temperature Range (°C)	-10~60	-10~60	-10~60	-10~60
Dew Point (°C)	-70	-70	-70	-70
Helium Leak Rate (Acc/sec)	$\leq 1 \times 10^{-8}$	$\leq 1 \times 10^{-8}$	$\leq 1 \times 10^{-8}$	$\leq 1 \times 10^{-8}$
Weight (kg)	1.2	1.3	1.9	2.0

"EXCELLENT MARK II" SERIES



■Station line regulators

EX-500mk II G1 EX-600mk II G2

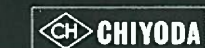


■High flow line regulators

EX-700mk II EX-1000mk II
EX-4000mk II

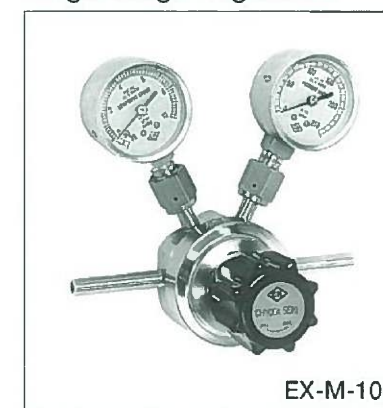
■Specifications

Models	EX-500mk II	EX-600mk II	EX-700mk II	EX-1000mk II	EX-4000
Max. Inlet Pressure (kgf/cm ²)	30	30	20	10	10
Max. Delivery Pressure (kgf/cm ²)	10	10	10	8	8
Normal Flow Rate (NL/min)	20	100	300	1000	4000
Max. Flow Rate (NL/min)	50	150	450	2000	5000
Flow Coefficient (CV=)	0.17	0.17	0.60	1.75	3.58
Temperature Range (°C)	-10~60	-10~60	-10~60	-10~60	-10~60
Dew Point (°C)	-70	-70	-70	-70	-70
Helium Leak Rate (Acc/sec)	$\leq 1 \times 10^{-8}$	$\leq 1 \times 10^{-8}$	$\leq 1 \times 10^{-7}$	$\leq 1 \times 10^{-6}$	$\leq 1 \times 10^{-6}$
Weight (kg)	0.9	1.0	3.5	6.0	16

ULTRA HIGH PURITY GAS REGULATORS
"EXCELLENT-MEGA" SERIES

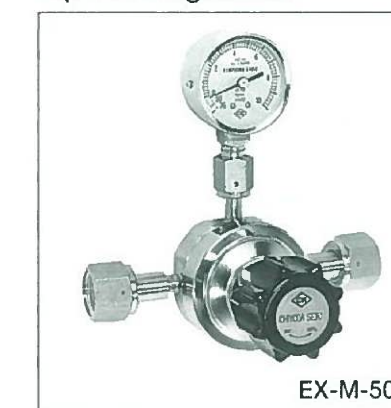
EX-M (Excel Mega) Series single stage stainless steel regulators are designed for Instrument Analysis or Semiconductor Manufacturers where high purity must be maintained. This series regulators are more accuracy than our EX-mk II series and have been founded to have a leakage rate of less than 1×10^{-10} Acc/sec. of helium.

Single Stage Regulators



EX-M-100

Pipeline Regulators



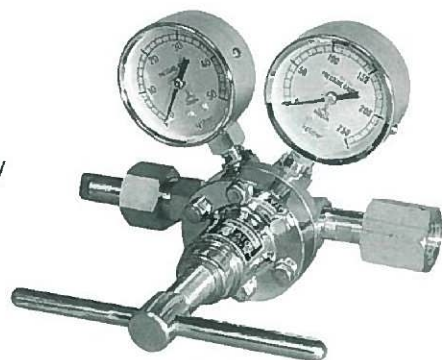
EX-M-500

■Specifications

Models	EX-M-20	EX-M-100	EX-M-500	EX-M-600
Max. Inlet Pressure (kgf/cm ²)	220	220	30	30
Max. Delivery Pressure (kgf/cm ²)	10	10	10	10
Normal Flow Rate (NL/min)	20	100	20	100
Max. Flow Rate (NL/min)	50	150	50	150
Flow Coefficient (CV=)	0.05	0.05	0.17	0.17
Temperature Range (°C)	-10~60	-10~60	-10~60	-10~60
Dew Point (°C)	-74	-74	-74	-74
Helium Leak Rate (Acc/sec)	$\leq 1 \times 10^{-10}$	$\leq 1 \times 10^{-10}$	$\leq 1 \times 10^{-10}$	$\leq 1 \times 10^{-10}$
Connections	1/4 VCR or Tube	1/4 VCR or Tube	1/4 VCR or Tube	1/4 VCR or Tube
Weight (kg)	1.2	1.3	0.9	1.0
Surface Finish	Electropolished Rmax. 0.7 μm			

※EX-M-700, EX-M-1000, EX-M-4000 regulators available for large flow.

High Delivery Pressure Regulators for Cylinder

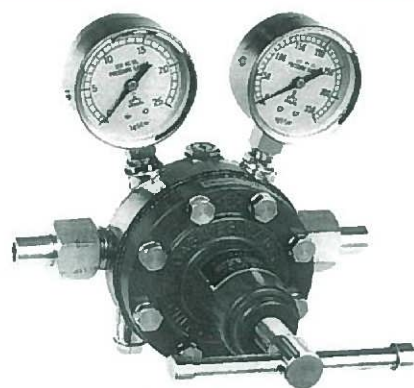


KR-80H

Models	Gauges (kgf/cm ²)		Max. Working (kgf/cm ²)		Flow Capacity (Nm ³ /h)	Weight (kg)
	HP	LP	Inlet Pressure	Delivery Pressure		
KR-30H	0~250	0~50	165	30	50	1.7
KR-80H	0~250	0~150	165	80	100	2.3
KR-120H	0~250	0~200	165	120	80	2.5
KR-170H	0~250	0~250	165	150	80	3.3
TKR-50K	0~250	0~50	165	30	75	2.0
TKR-100K	0~250	0~150	165	100	170	2.4

※ Incoming Pressure: Max. 220kgf/cm² types are also available.

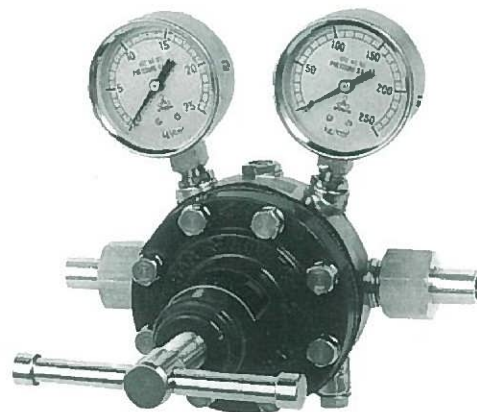
High Inlet Pressure Regulators for distribution lines



TKR-140

Models	Gauges (kgf/cm ²)		Max. Working (kgf/cm ²)		Flow Capacity (Nm ³ /h)	Weight (kg)
	HP	LP	Inlet Pressure	Delivery Pressure		
TKR-140	0~350	0~25	220	15	155	3.5
TKR-200	0~350	0~25	220	15	280	5.2
TKR-500	0~350	0~25	220	15	320	9.0
TKR-1000	0~350	0~15	220	10	570	16.0

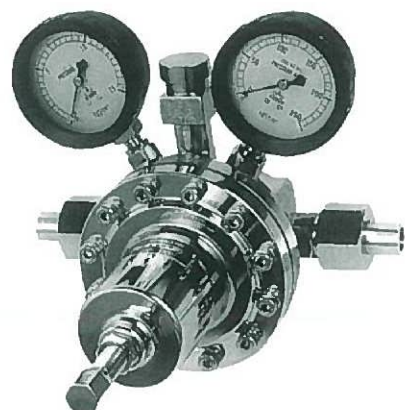
High Flow Regulators for central manifold or distribution lines



GS-200

Models	Gauges (kgf/cm ²)		Max. Working (kgf/cm ²)		Flow Capacity (Nm ³ /h)	Weight (kg)
	HP	LP	Inlet Pressure	Delivery Pressure		
GS-140	0~250	0~25	165	15	155	3.5
GS-200	0~250	0~25	165	15	280	5.2
GS-140L	0~50	0~15	30	10	150	3.5
GS-200L	0~50	0~15	30	10	230	5.2

High Flow Regulators for distribution lines



GS-1000

Models	Gauges (kgf/cm ²)		Max. Working (kgf/cm ²)		Flow Capacity (Nm ³ /h)	Weight (kg)
	HP	LP	Inlet Pressure	Delivery Pressure		
GS-500	0~250	0~25	165	15	560	9.0
GS-1000	0~250	0~15	165	10	1,050	16.0

Outlet Regulators for pipeline
GL-10, GL-25
for Acetylene, Propane

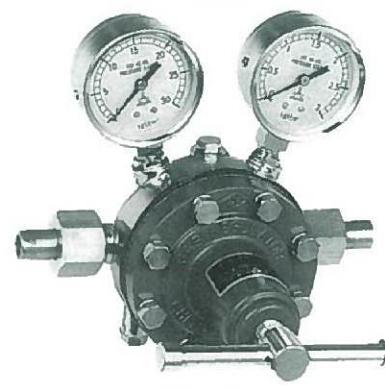
GL-30, GL-60, GL-120,
GL-180
for O₂, N₂, Ar, CO₂ etc.



GL-30

Models	Gauges (kgf/cm ²)		Max. Working (kgf/cm ²)		Max. Flow Capacity (Nm ³ /h)	Weight (kg)
	HP	LP	Inlet Pressure	Delivery Pressure		
GL-10	—	0~2	2	1	10	0.8
GL-25	—	0~2	2	1	25	1.9
GL-30	—	0~15	10	8	30	0.8
GL-60	—	0~25	25	15	60	0.9
GL-120	—	0~25	15	8	120	1.9
GL-180	—	0~25	40	15	180	1.9

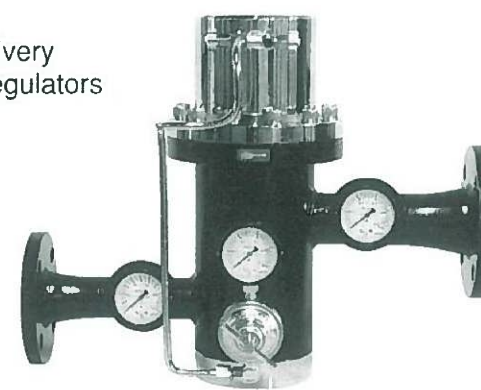
High Flow Regulators for Acetylene manifolds or distribution lines



GS-14

Models	Gauges (kgf/cm ²)		Max. Working (kgf/cm ²)		Flow Capacity (Nm ³ /h)	Weight (kg)
	HP	LP	Inlet Pressure	Delivery Pressure		
GS-14	0~30	0~3	30	1.5	20	3.5
GS-20	0~30	0~3	30	1.5	36	5.2

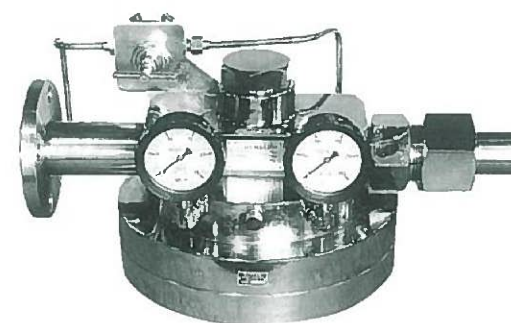
High Flow, but Low Delivery Pressure Regulators



RSC-3

Models	Gauges (kgf/cm ²)		Max. Working (kgf/cm ²)		Flow Capacity (Nm ³ /h)	Weight (kg)
	HP	LP	Inlet Pressure	Delivery Pressure		
RF-400	0~2	0~0.5	1	0.2	150	93
RF-400P	0~20	0~3	5	2	750	90
MGS-200	-	-	10	0.4	300	26.2
RSC-3	—	—	30	10	2,300	31

High Flow Regulators for manifold or distribution lines



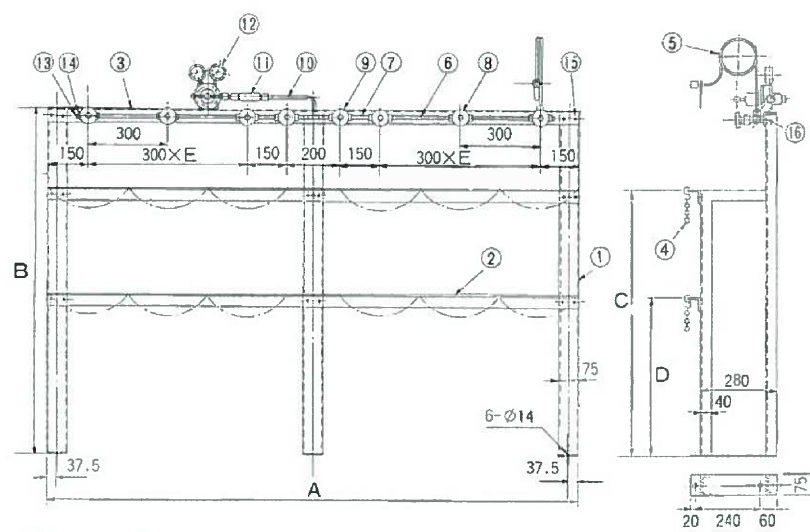
GS-3000P

Models	Gauges (kgf/cm ²)		Max. Working (kgf/cm ²)		Flow Capacity (Nm ³ /h)	Weight (kg)
	HP	LP	Inlet Pressure	Delivery Pressure		
GS-1000P	0~250	0~25	165	15	1,050	18.7
GS-2000P	0~250	0~25	165	15	1,600	34.6
GS-3000P	0~250	0~25	165	15	2,300	45.0

※ Incoming Pressure: Max. 220kgf/cm² types are also available.

1. Single-Row (Wall type) Manifold

Applicable for O₂, N₂, Ar, H₂, C₂H₂, He, CO₂, etc.



■ Dimensions

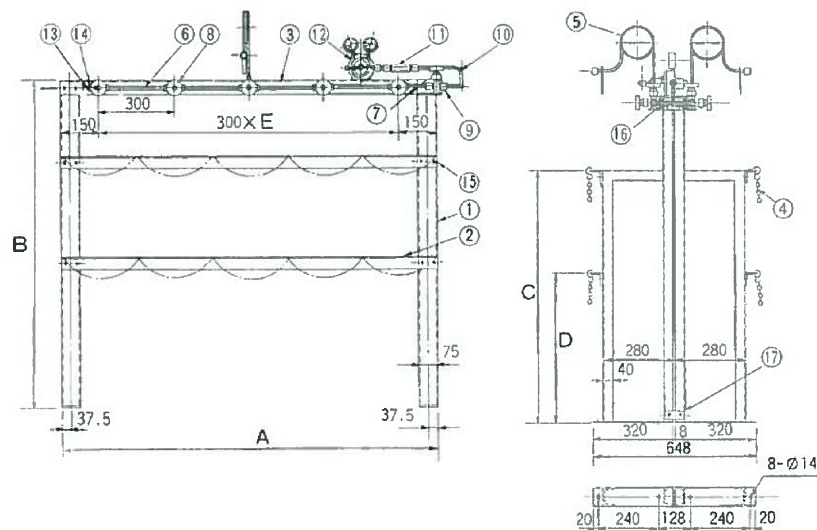
Single-row type for O₂, N₂, Ar, H₂, He, CO₂ cylinders

Cylinders	A	B	C	D	E
2×2	1400	1300	1000	600	1
3×3	2000	1300	1000	600	2
4×4	2600	1300	1000	600	3
5×5	3200	1300	1000	600	4
6×6	3800	1300	1000	600	5

Single-row type for Acetylene cylinders

Cylinders	A	B	C	D	E
2×2	1400	1200	600	250	1
3×3	2000	1200	600	250	2
4×4	2600	1200	600	250	3
5×5	3200	1200	600	250	4
6×6	3800	1200	600	250	5

2. Double-Row Manifold



■ Dimensions

Double-row type for O₂, N₂, Ar, H₂, He, CO₂ cylinders

Cylinders	A	B	C	D	E
2×2	600	1300	1000	600	1
3×3	900	1300	1000	600	2
4×4	1200	1300	1000	600	3
5×5	1500	1300	1000	600	4
6×6	1800	1300	1000	600	5

Double-row type for Acetylene cylinders

Cylinders	A	B	C	D	E
2×2	600	1200	600	250	1
3×3	900	1200	600	250	2
4×4	1200	1200	600	250	3
5×5	1500	1200	600	250	4
6×6	1800	1200	600	250	5

■ Part Informations

No.	Parts	Remarks
1	Pedestal	Steel L75×40
2	Cylindar holder	Steel L50×50
3	Valve mounting frame	Steel L50×50
4	Chains	SS41
5	Pigtail	PH-1
6	L-pipe	UN-L
7	S-pipe	UN-S
8	3-way valve	KV-250-T
9	Shut-off valve	KV-250-CIS
10	T-pipe	UN-T
11	Strainer	FB-22
12	Pressure Regulator	GS-140
13	Stop nut	UN-PN
14	Nut	W22 M14
15	Setting bolt	M10-L10
16	Setting bolt	M8-L15

ANTI-FREEZING HEATER for non-syphon CO₂ cylinders.

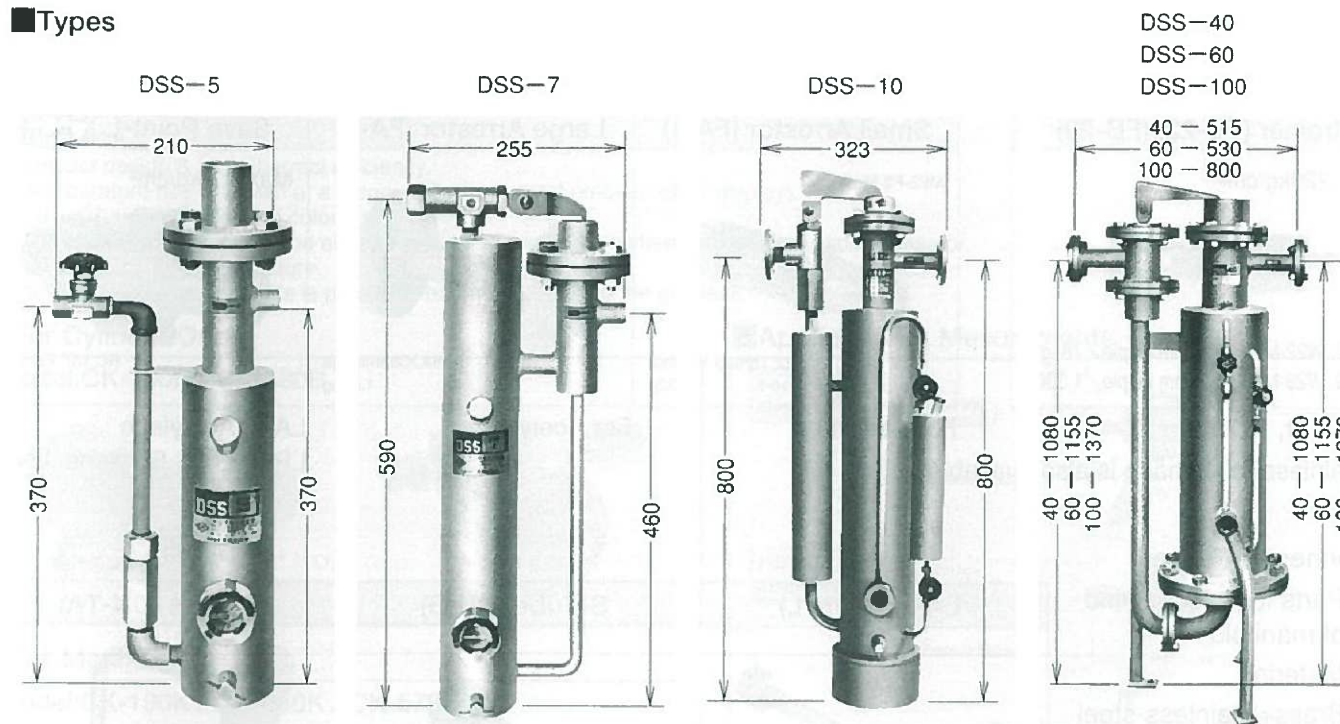


※ See page 30

■ Part Informations

No.	Parts	Remarks
1	Pedestal	Steel L75×40
2	Cylindar holder	Steel L50×50
3	Valve mounting frame	Steel L50×50
4	Chains	SS41
5	Pigtail	PH-1
6	L-pipe	UN-L
7	S-pipe	UN-S
8	3-way valve	KV-250-T
9	Shut-off valve	KV-250-CIS
10	T-pipe	UN-T
11	Strainer	FB-22
12	Pressure Regulator	GS-140
13	Stop nut	UN-PN
14	Nut	W22 M14
15	Setting bolt	M10-L10
16	Setting bolt	M8-L15
17	Steel plate	SS41

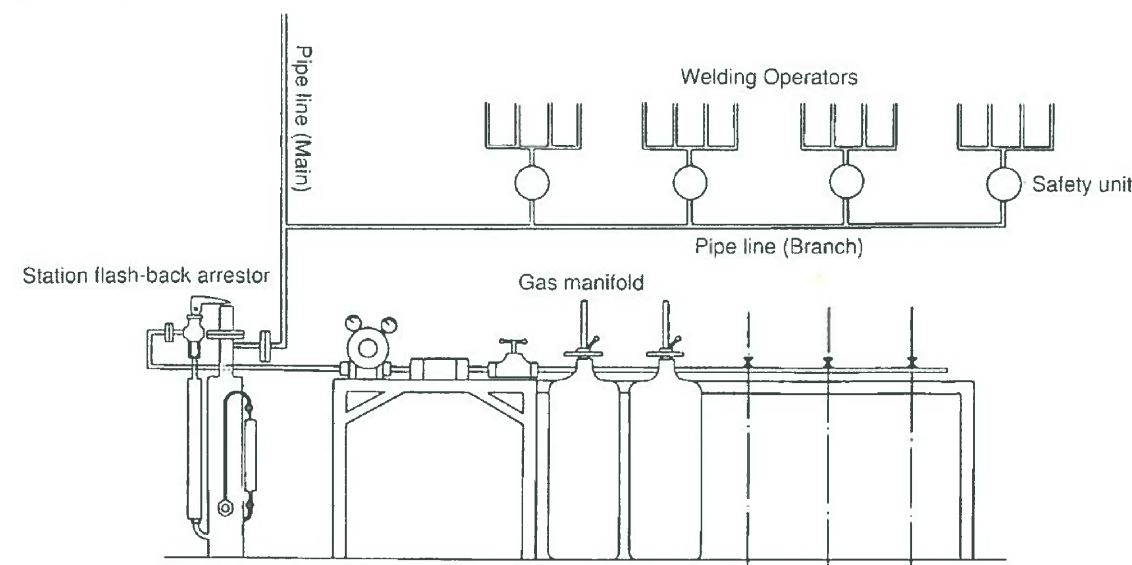
■ Types



■ Specifications

Type	DSS-5	DSS-7	DSS-10	DSS-40	DSS-60	DSS-100
Flow Capacity (m ³ /h)	5	7	20	40	60	100
Inlet	PT $\frac{3}{8}$ Female	PT $\frac{1}{2}$ Female	1B×5KF	1 $\frac{1}{2}$ B×5KF	2B×5KF	2 $\frac{1}{2}$ B×5KF
Outlet	PF $\frac{3}{8}$ Female	PF $\frac{1}{2}$ Female				
Height (mm)	500	600	850	1,300	1,400	1,700
Weight (kg)	8	11	30	105	110	216

■ Installations



Strainer (Filter)

Install in the inlet of regulator to prevent dust coming-in

Strainer (FB-22) (FB-29)

Max. 220kg/cm²



FB-22: W22-M14+φ10mm nipple/784g
FB-29: W29-M16+φ16mm nipple/1,330g

For O₂, Ar, CO₂

All stainless-steel made is also available

Flashback Arrestor

Install in primary line to prevent flash-back.
Working Pressure: Max. 30kgf/cm²

Small Arrestor (FA-1)

M22-P2 Male



W22-Thread 14 Male
332g

For Acetylene

Large Arrestor (FA-2)



15A×20k-flange
1,680g

For Acetylene

Save Point-L (LA-8) (LP-8)

Max. 1.3kg/cm²



RC 1/2" Female
1,800g

LA-8: Acetylene

LP-8: LPG, Ethylene, LNG

Connecting Tubes

- Parts for various kind of manifold
- Material:
Brass+Stainless-steel
- All stainless-steel made is also available

L-Tube (UN-L)



W22-Thread 14 NUT
408g

S-Tube (UN-S)



W22-Thread 14 NUT
264g

T-Tube (UN-TA)



JIS 15A×20k-flange
W22-Thread 14 NUT
1,270g

T-Tube (UN-T)



W22-Thread 14 NUT
680g

U-Tube (UN-U)



W22-Thread 14 NUT
720g

Flange-Nut (UN-O)



15A×10k-flange
W22-Thread 14 NUT
780g

Stop Nut (UN-PN)

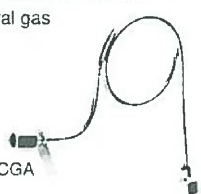


W22-Thread 14 NUT
128g

Pigtails

with Spanner Handle (PH-1)

For general gas



JIS, B.S., CGA
W22-Thread 14 NUT
Copper tube 718g

with Round Handle (PH-2)

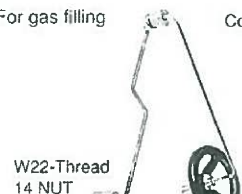
For general gas



W22-Thread 14 NUT
JIS, B.S., CGA
Copper tube 1,108g

with Universal Tube (PH-4)

For gas filling



Copper tube
W22-Thread 14 NUT
JIS, B.S., CGA 1,300g

for Standard Gas (PH-5)

For standard gas



φ 6.35 tube
JIS, B.S., CGA
Stainless-steel 316 tube 350g

for Hi-Purity Gas (PH-6)

For hi-purity gas



Single type Swagelock VCR
with purge-line Swagelock VCR
360g
JIS, B.S., CGA
260g
Stainless-steel 316 tube

for Acetylene (CY04-22)

For acetylene



Synthetic fiber
W22-Thread 14 NUT
506g/m

for N₂, Ar (KB04-22N)

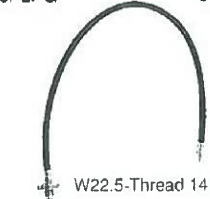
For N₂, Ar



Synthetic fiber
W22-Thread 14 NUT
600g/m

for LPG (PH-9)

For LPG



Synthetic fiber
PT-1/4" male
W22.5-Thread 14 Male (L)
330g/m

ANTI-FREEZING HEATER FOR CO₂ GAS

Outline

If carbon dioxide gas is used so much, by the temperature fall of gas, the operation part of the pressure regulator freezes with dry ice crystals and gas may not flow.
CK-Series electrically heated, thermostatically controlled, anti-freezing heater prevent from internal dry ice accumulations and freeze-up of orifices regulator inside.

Features

- Compact design & High thermal efficiency.
- A temperature rise is known at a glance with thermostat emblem (50°C display).
- Unusual heating prevention cutout built-in.
- Build the special strainer in the entrance side and prevent the sheet leak of a pressure regulator.
- It is semi-water proof structure.
- The entrance for equipments is per metal and has prevented the gas leak.

For Cylinder Outlet

Model:CK-190B / CK-380B

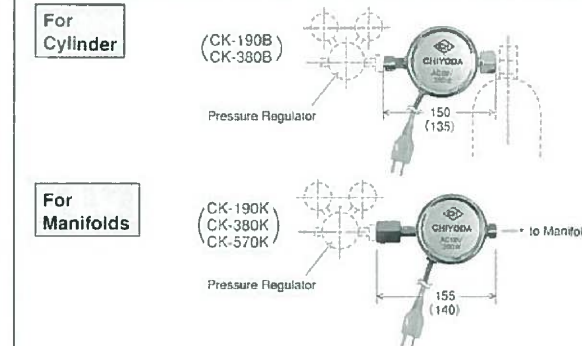


For Manifolds

Model:CK-190K / CK-380K / CK-570K



Application & Measurements



Caution

1. CK-Series cannot be used for CO₂ siphon cylinder
2. Please start to supply gas. After the ⊕ of the thermostat emblem looms, which means the temperature of the heater reached to 50°C
3. In order to improve thermal efficiency. Please attach just before a pressure regulator.
4. The number in mentioned () express the size of CK-190K.

Specifications

Spec.	Model	For Cylinder		For Cylinder Manifold	
		CK-190B / CK-380B		CK-190K / CK-380K / CK-570K	
Applicable Gas		CO ₂ , O ₂ , N ₂ , N ₂ O etc.			
Max. Inlet Pressure (kgf/cm ²)		150			
Power Supply		AC-110/220V 50/60HZ *As other power supply available at option, please specify the voltage.			
Thermostat (°C)		60+/-5			
Code Length (m)		2			
Inlet Connection		W22-14TH SWIVEL & NUT		W22-14TH (MALE)	
Outlet Connection		W22-14TH (MALE)		W22-14TH SWIVEL & NUT	

Capacity

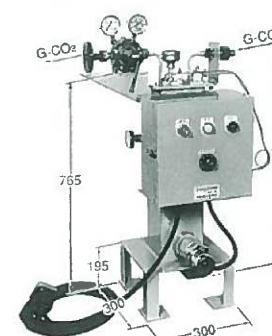
Model	Capacity	Max. Flow Capacity (m ³ /h · Normal)			Heater Capacity (W)	Weight (kg)
		75kgf/cm ² ≥	75kgf/cm ² ≤	N ₂		
CK-190B		6	2	25	190	1.8
CK-190K						
CK-380B		12	4	50	380 (190×2)	2.3
CK-380K						
CK-570K		18	6	75	570 (190×3)	2.4

High Flow Type Anti-Freezing Heater for CO₂ Gas Service, Ground Mounted ... CVR-G-20B-100/-200, CVR-G-40B-200

• This unit is installed especially after high flow CO₂ gas manifold for stable gas supply.

*CAUTION: This unit is prohibited to use for syphon type CO₂ cylinder.

As this unit is not a vaporizer, for the liquefied CO₂ gas supply, please use vaporizer as per required capacity.



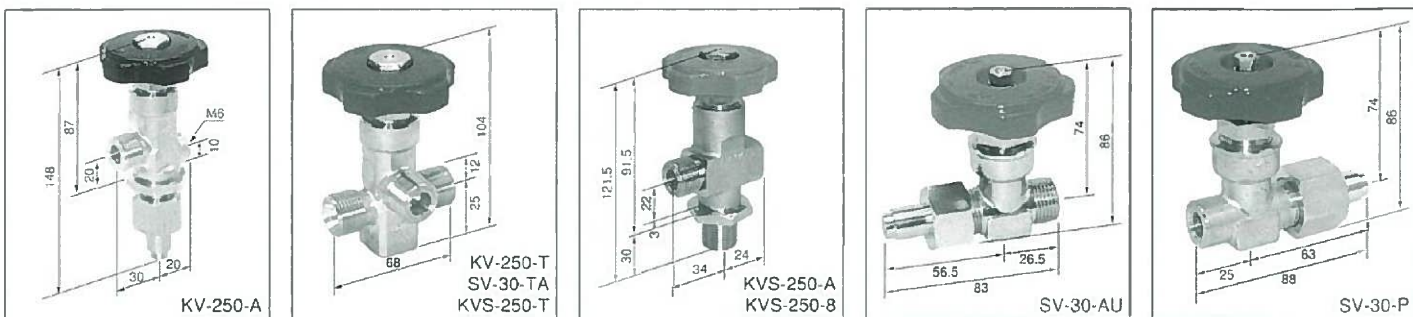
Specifications

Specification	Model	CVR-G 20B-100	CVR-G 20B-200	CVR-G 40B-200
Capacity	(kg/h)	20 (CO ₂)		40 (CO ₂)
Heater Capacity	(kW)	1		2
Power Supply		AC110V	AC220V 3 Fase	AC220V 3 Fase
Thermostat (°C)		60+/-5		
Code Length	(m)	5		
Inlet Connection	(mm)	Application φ 10 Copper Tube		
Outlet Connection		15A X 10KF		
Applicable Gas		CO ₂ Gas (Siphon Cylinder is prohibited to use)		
Max. Inlet Pressure (kgf/cm ²)		100		
Delivery Pressure Range (kgf/cm ²)		2~5		
Water Level Alarm		Alarm & Heater Circuit Interception		
Weight	(kg)	40		



Neck Valve

※ Handle: φ 66mm



Specifications

Name	Model	Gas	Design Pressure (kgf/cm ²)	Connection		Dia. (mm)	Material Body/Disc	cv	Weight (g)
				Inlet	Outlet				
Neck Valve	KV-250-A	O ₂ , N ₂ , CO ₂	250	W22-M14 M12P1.0	W22-M14 MALE	4	C3771B DIFLON	0.45	620
Neck Valve	KVS-250-A		250	W22-M14 MALE		12	SUS316 DIFLON	0.45	575
Neck Valve	KVS-250-8	Ar, H ₂ , He	250	W22-M14 MALE		10	SUS316 DIFLON	1.0	555
Three-way Valve	KV-250-T	C ₂ H ₂	250	W22-M14 MALE		4	C3771B DIFLON	0.45	530
Acetylene Neck Valve	SV-30-AU		30	W22-M14 with φ15mm nipple		6	C3771B NYLON	0.8	440
Acetylene Three-way Valve	SV-30-TA	C ₂ H ₂	30	W22-M14 MALE	4	C3771B DIFLON	0.45	530	
LPG Neck Valve	SV-30-P	LPG	30	Rc-1/4	6	C3771B NYLON	0.8	455	
Three-way Valve (SUS)	KVS-250-T	O ₂ , H ₂ , He	250	W22-M14 MALE	4	SUS316 DIFLON	0.45	540	

Shut-Off Valve



Specifications

Name	Model	Gas	Design Pressure (kgf/cm ²)	Connection		Dia. (mm)	Material Body/Disc	cv	Weight (g)
				Inlet	Outlet				
Shut-Off Valve	KV-250-C	O ₂ , N ₂ , CO ₂	250	W29-M16 (Male) φ16mm nipple	W22-M14 (Male)	10	C3771B DIFLON	1.65	2160
Filling Valve	KV-250-F		250	W40-P2.0 (Male) φ22mm nipple		14		3.0	4435
Shut-Off Valve	KV-250-CIS		Ar, H ₂ , He	250		W22-M14 (Male)		8	1.0
Shut-Off Valve	KV-250-Z	C ₂ H ₂	250	W22-M14 (Male) (Uneven Parallel)	8	1.0	510		
Acetylene Shut-Off Valve	SV-30-CAIS		30	W22-M14 (Male)	8	C3771B DIFLON	1.0	510	
Shut-Off Valve (SUS)	KVS-250-CIS	O ₂ , H ₂ , He	250	W22-M14 (Male)	8	SUS316 DIFLON	1.0	520	

Valve Handle with Open / Close Indication

- Newly developed valve handle with open/close indication enables to recognize whether the valve is opened or closed at a glance.
- Please also specify as **KVW**-250-A/-T, **KVSW**-250-A/-8, **SVW**-30-TA1, **KVW**-250-CIS/-Z, **KVSW**-250-CIS, **SVW**-30-CAIS in your ordering.



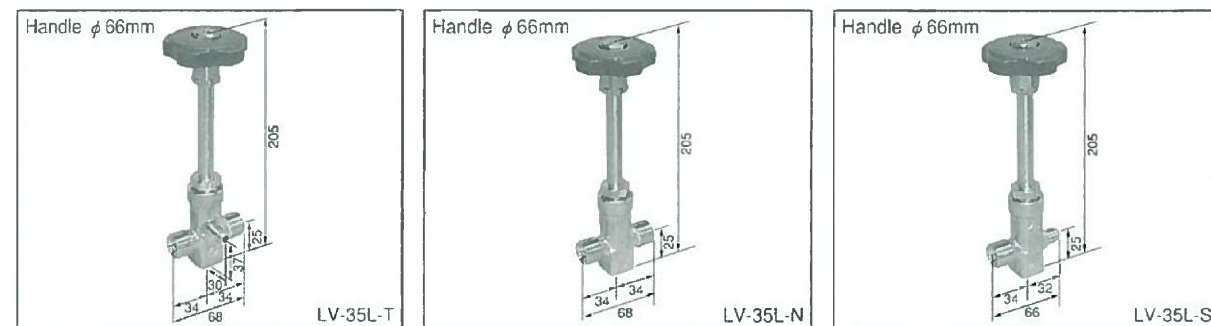
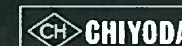
Handle; φ 66mm



Specifications

Name	Model	Gas	Design Pressure (kgf/cm ²)	Connection		Dia. (mm)	Material Body/Disc	cv	Weight (g)
				Inlet	Outlet				
Two-Way Valve	KVS-420-C	O ₂ , N ₂ , Ar, H ₂ , He	420	M32X2(RH)(M)	M32X2(RH)(M)	10	SUS316 DAIFLON	1.65	1,640
Two-Way Valve	KVS-420-CIS			M23X2(RH)(M)	M23X2(RH)(M)	4		0.45	640
Three-Way Valve	KVS-420-T			M23X2(RH)(M)	M23X2(RH)(M)	4		0.45	660

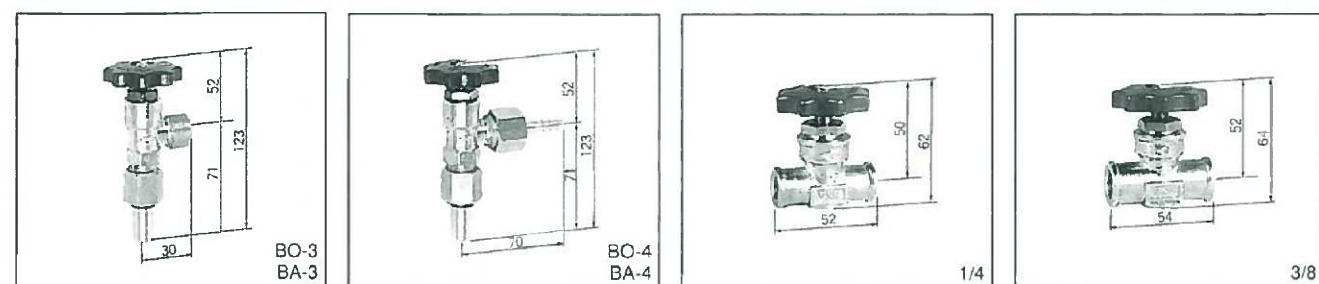
NECK VALVES/SHUT-OFF VALVES FOR CRYOGENIC GAS



Specifications

Name	Model	Gas	Design Pressure (kgf/cm ²)	Working Temperature (°C)	Connection		Dia. (mm)	Material Body/Disc	cv	Weight (g)
					Inlet	Outlet				
Neck Valve/ Shut-Off-Valve for Cryogenic Gas Control	Three-Way Valve	LN ₂ , LAr, LO ₂ , LCO ₂	35	-196~+4	9/16-18UNF(RH)(M)	W22-14TH(RH)(M)	7	C3771B DAIFLON	0.45	660
	Two-Way Valve				W22-14TH(RH)(M)					650
	Two-Way Valve				9/16-18UNF(RH)(M)					640

OUTLET VALVES/STOP VALVES



Specifications

Name	Model	Gas	Design Pressure (kgf/cm ²)	Connection		Dia. (mm)	Material Body/Disc	cv	Weight (g)
				Inlet	Outlet				
B-Valve	BO-3	O ₂ , N ₂ , CO ₂ , Ar, He	30	M18-P1.5 φ13mm nipple	W22-M14 (RH)(M)	6	C3771B NYLON	0.8	300
Acetylene B-Valve	BA-3				C ₂ H ₂ , LPG, H ₂				W22-M14 (LH)(M)
B-Valve	BO-4	O ₂ , N ₂ , CO ₂ , Ar, He	W22-M14 (M) 5/16" hose nipple		210				
Acetylene B-Valve	BA-4	C ₂ H ₂ , LPG, H ₂	W22-M14 (M) 3/8" hose nipple		230				
Stop Valve	1/4	O ₂ , N ₂ , CO ₂	RC 1/4" (F)		210				
Stop Valve	3/8	Ar, H ₂ , He, LPG	RC 3/8" (F)		230				

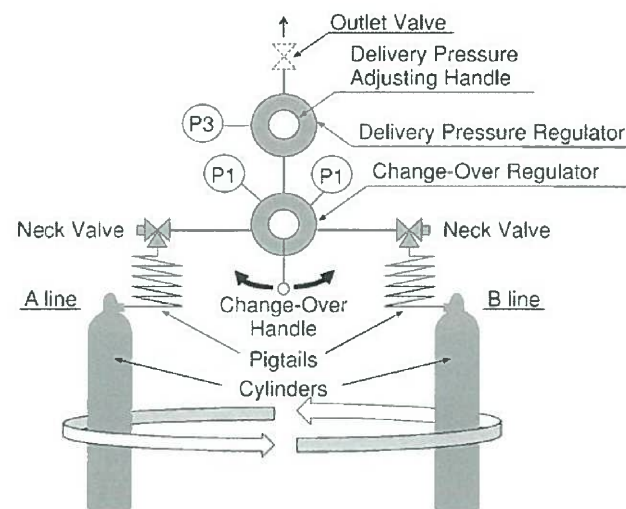
SEMI-AUTOMATIC CHANGE-OVER SYSTEMS

MODEL: CH-100/EXS-100



Functions

At the intermediate of two separated cylinder banks, the change-over system switches when gas is depleted in one cylinder bank to the other, allowing cylinder replacement with uninterrupted gas service.



Technical Informations

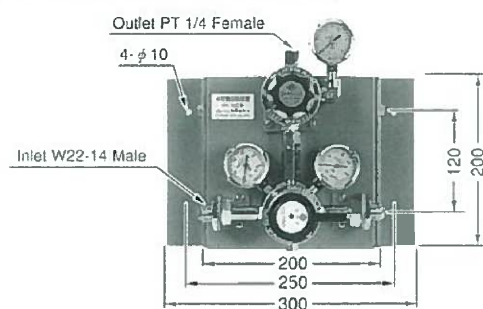
Types	CH-100	EXS-100
Specifications		
Applications	For Normal & Standard gases	For High purity gases
Fluids	O ₂ , N ₂ , Ar, H ₂ , He, CO ₂ , etc.	Various kinds of gas, except corrosive gases
Max. Inlet pressure (P ₁) (kgf/cm ²)	165	
Change-over pressure (P ₂) (kgf/cm ²)	Around 10	
Delivery pressure (P ₃) (kgf/cm ²)	1~6	
Normal flow rate (NL/min.)	50	
Inlet pressure gauge Range (2 pcs.) (kgf/cm ²)	0~250	
Delivery pressure gauge Range (1 pc.)	0~10kgf/cm ²	76cmHg~10kgf/cm ²
Inlet connection	W22-14M (Male)	Half-union 1/4"
Outlet connection	PT 1/4 (Female)	Half-union 1/4"
Material (Wetted parts)	C3771B Diaphragm CR	SUS316 Diaphragm SUS316
Weight (incl. panel) (kg)	6.5	5.8

Selection Guide

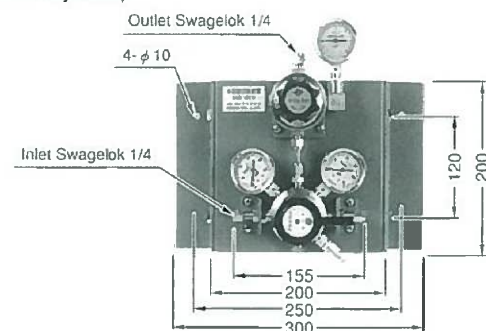
Types	Panel-Set	Pedestal-Set	Neck-Valve Set
Applications			
For Normal Gas	CH-100 TYPE	MCH-100A TYPE (1X1)	MCH-100AN TYPE (1X1)
For Standard Gas		MCH-100B TYPE (1X1)	MCH-100BN TYPE (1X1)
For Hi-Purity Gas	EXS-100 TYPE	MEXS-100 TYPE (1X1)	MEXS-100N TYPE (1X1)

※2X2 or more cylinder types are also available

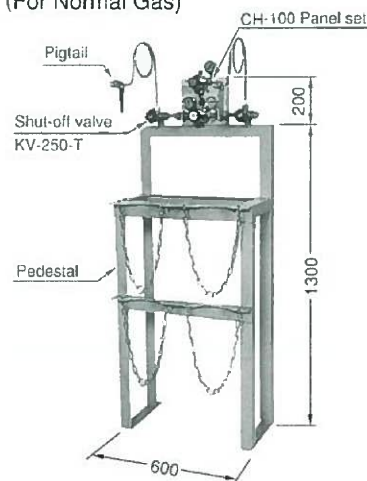
CH-100 (Panel Set) (For Normal Gas, Calibration Gas)



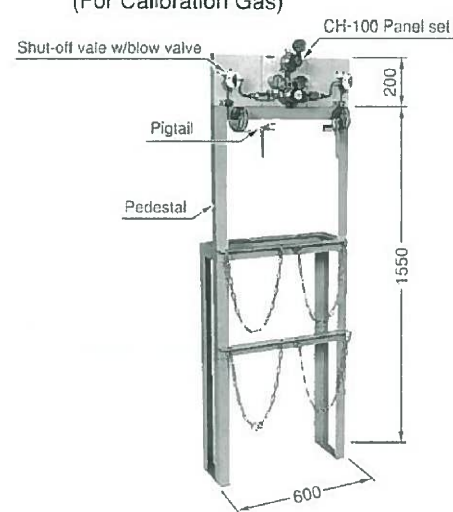
EXS-100 (Panel Set) (For Hi-Purity Gas)



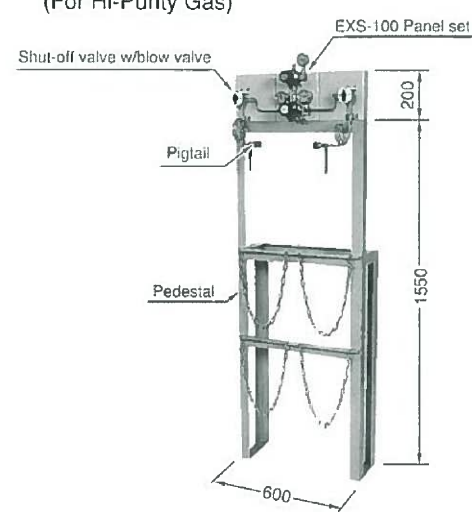
MCH-100A (Pedestal Set) (For Normal Gas)



MCH-100B (Pedestal Set) (For Calibration Gas)



MEXS-100 (Pedestal Set) (For Hi-Purity Gas)

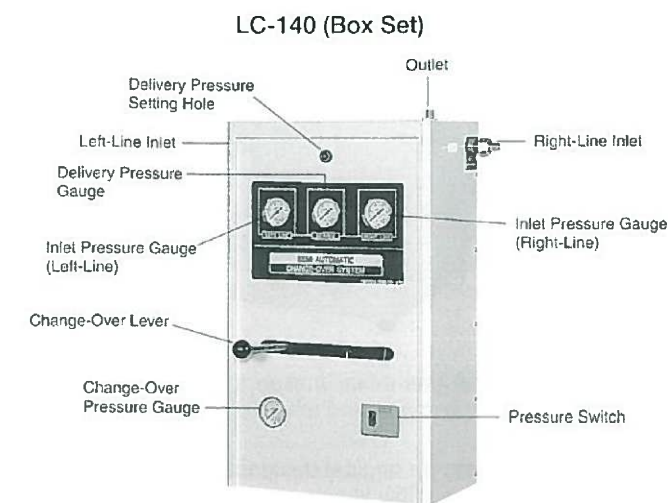


SEMI-AUTOMATIC CHANGE-OVER SYSTEM (HIGH FLOW TYPE)

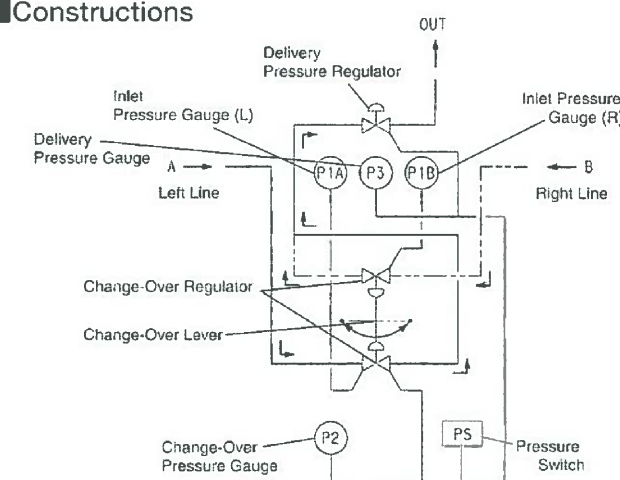
MODEL: LC-140



Parts Name



Constructions



Specifications

Applicable Gas	O ₂ , N ₂ , Ar, Air etc.
Max. Inlet Pressure (P ₁) (kgf/cm ²)	165
Secondary Pressure (P ₂) (Change-over Pressure)	A:Pre-set side 10kgf/cm ² B:Variable side 12kgf/cm ²
Delivery Pressure (P ₃) (kgf/cm ²)	1~7
Max. Flow-rate (Nm ³ /h)	50
Inlet Pressure Gauge (kgf/cm ²)	0~250
Secondary Pressure Gauge (kgf/cm ²)	0~15
Delivery Pressure Gauge (kgf/cm ²)	0~15
Pressure Switch Setting (kgf/cm ²)	3
Inlet Connection	W22M14 Male
Outlet Connection	W22M14 Male
Size (mm)	750(H)x454(W)x305(D)
Net Weight (kg)	42 (Body Only)

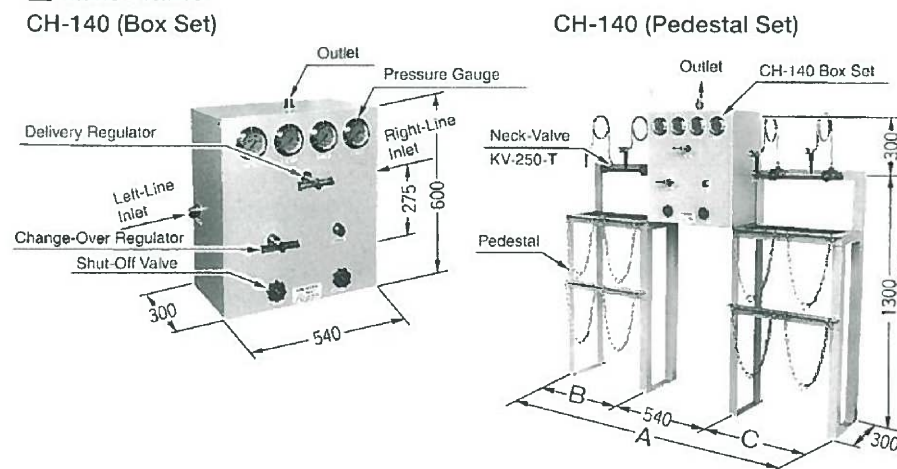


SEMI-AUTOMATIC CHANGE-OVER SYSTEM (HIGH FLOW TYPE)

MODEL: CH-140



Parts Name



A, B, C Depend On The Nos. Of Cylinders

Specifications

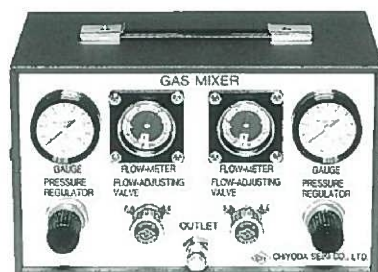
Applicable Gas	O ₂ , N ₂ , Ar, Air etc.
Max. Inlet Pressure (P ₁) (kgf/cm ²)	165
Secondary Pressure (P ₂) (Change-over Pressure)	A:Pre-set side 7kgf/cm ² B:Variable side 8kgf/cm ²
Delivery Pressure (P ₃) (kgf/cm ²)	1~5 (~9kgf)
Standard Flow-rate (Nm ³ /h)	60
Inlet Pressure Gauge (kgf/cm ²)	0~250
Delivery Pressure Gauge (kgf/cm ²)	0~15
Inlet Connection	W22M14 Male
Outlet Connection	W29M16 Male
Size (mm)	600(H)x540(W)x300(D)
Net Weight (kg)	33.5 (Body Only)

※Flange type outlet connection is also available

COMPACT TYPE GAS MIXERS MODEL: 2MD-100/2MF-100



Model: 2MD-100



Outline

This compact type gas mixer makes more stable mixed gas by using hi-precision dial-type flow-meter and hi-precision gas-mixer.

Features

1. Because of dial type flow meters are installed, the delivery flow rate is a stable and an accuracy.
2. The delivery gas flow rate is accurately controlled by an original designed gas mixer.
3. No reverse flow does occur by using a check valve.
4. For your optional use, the mixer has two outlets, in front and reverse side.
5. The minimize compact designed mixer is easy for carrying.

Specifications

Applicable Gas	Argon, CO ₂ , Air, Nitrogen, Helium, Hydrogen
Inlet Pressure (kgf/cm ²)	4~10
Adjusting Pressure (kgf/cm ²)	3
Max. Flow-rate (NL/min.)	100
Flowmeter (NL/min.)	50+50
	30+30
	15+15
Size (mm)	300(W)X180(H)X160(L)
Weight (kg)	5

Model: 2MF-100



Outline

This compact type gas mixer makes a stable mixed gas by using float type flow-meter and mixer.

Features

1. Because of using an original designed gas mixer is installed, the delivery gas flow is accurately controlled at ±2.5% to 5% of a desired rate.
2. The delivery pressured is fixed at 3kgf/cm² by using a built-in regulator.
3. No reverse flow does occur by using a check valve.
4. The minimize compact designed mixer is easy for carrying.

Specifications

Applicable Gas	Argon and CO ₂
Inlet Pressure (kgf/cm ²)	4~10
Adjusting Pressure (kgf/cm ²)	3 (Fixed)
Max. Flow-rate (NL/min.)	50 (both Ar, CO ₂)
Flowmeter (NL/min.)	Argon 25 or 50
	CO ₂ 25 or 50
Size (mm)	200(W)X220(H)X230(L)
Weight (kg)	6

CO₂ VAPORIZERS CVR SERIES



Outline

Our "CVR" type CO₂ Vaporizers change liquid CO₂ in cylinder, tank or container to CO₂ gas by using electric heaters, steam or hot water and supply stability.

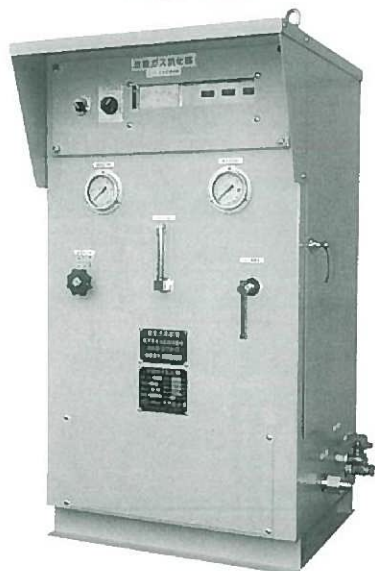
Features

- *Our original WATER LEVEL WARNING UNIT is installed in the unit, the heaters are not burnt out in case of no water.
- *The compact design body use only small installation space and proof for rain.

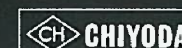
Specifications		Cylinder	Tank	Container
Design		120	30	35
Pressure	(kgf/cm ²)			
Working	Inlet (P1) (kgf/cm ²)	35~100	18~25	18~30
Pressure	Delivery (P2) (kgf/cm ²)		2-6	
Pressure	Inlet (P1) (kgf/cm ²)	0-200		0-50
Gauge	Delivery (P2) (kgf/cm ²)		0-10	
Safety Valve	(kgf/cm ²)	120	28	35

Type	Vaporizing Volume (kg/h)	Heater Capacity (kw)	Size (mm) (W)X(D)X(H)	Inlet Nipple (mm)	Water (Liter)	Weight (kg)
CVR-40	40	5	400X400X825	φ15	7	70
CVR-60	60	8	600X500X1100		40	120
CVR-100	100	10			125	
CVR-150	150	15	205			
CVR-200	200	20	600X600X1600	φ22	80	210
CVR-300	300	30	700X700X1600		120	275
CVR-400	400	40			290	

CVR-100T



GAS SAVER MODEL: CH-GS II



Outline

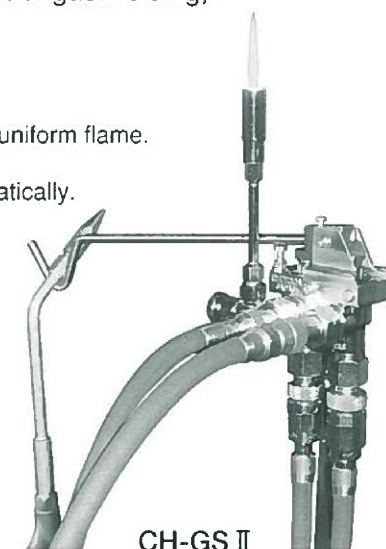
Our MODEL:CH-GS II gas saver makes unnecessary flame adjustment at new start of gas welding, heating & brazing work and reduce the wast of gas and time sharply.

Features

- Easy ignition with the pilot burner leads reducing the wast of gas and time.
- No need to adjust the flame when re-igniting and can move to work immediately with always uniform flame.
- Can perform uniform work everytime with always uniform flame.
- Only by hanging the torch on the lever, gas flow is intercepted and the flame goes out automatically.
- Designed for both acetylene and propane gases.
(However, please use the torch, tips and hose of exclusive use.)
- By mounting leg, can be attached on the work stand directly.

Specifications

Gas	Pressure (kgf/cm ²)	Inlet / Outlet Connection		Weight (g)
		Joint Screw (mm)	Hose Nipple (mm)	
Oxygen	1~7	M16X1.5 (RH)	φ5, 6.3, 8	1,284
Acetylene LPG	0.2~1	M16X1.5 (LH)	φ5, 6.3, 8, 10	(Fixing bolts are not included)

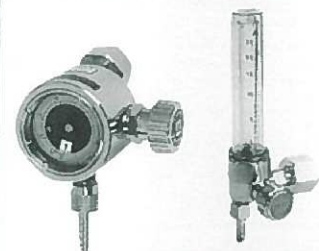


CH-GS II

ACCESSORIES



**Outlet Station Flowmeters
Dial and Tube types**



Spark Lighters



Nozzle Cleaners



Electrode Holders



CH-500

CH-350

INLET CONNECTIONS



	Japanese	British	American	German
Nitrogen	JIS φ22-14TH (R) INT. 	BS No.3 5/8 BSP.M.-R.H. 	CGA No.580 0.965"-14NGO-RH-EXT. 	DIN477. No.10 φ24.32-14TH (R) INT.
Argon	JIS φ22-14TH (R) INT. 	BS No.3 5/8 BSP.M.-R.H. 	CGA No.580 0.965"-14NGO-RH-EXT. 	DIN477. No.6 φ21.8-14TH (R) INT.
Helium	JIS φ21-14TH (L) INT. 	BS No.3 5/8 BSP.M.-R.H. 	CGA No.580 0.965"-14NGO-RH-EXT. 	DIN477. No.6 φ21.8-14TH (R) INT.
Hydrogen	JIS φ22-14TH (L) INT. 	BS No.4 5/8 BSP.M.-L.H. 	CGA No.350 0.825"-14NGO-LH-INT. 	DIN477. No.1 φ21.8-14TH (L) INT.
Carbon Dioxide	JIS φ22-14TH (R) INT. 	BS No.8 0.860-14 T.P.I.W-M-R.H. 	CGA No.320 0.825"-14NGO-RH-INT. 	DIN477. No.6 φ21.8-14TH (R) INT.