

Intelligent
VEGA QC

Model YSI-24D Ver.2

Model YSI-25D Ver.2

THE REASON WHY EXPERTS ARE CALLED PROFESSIONAL

What does the “car body repair” mean?

Off course, the answer is restoring broken cars.

Can you meet to the reasonable demands of your customers?

If your answer is “Yes”, I can say you are “professional”. But it is not easy.....

Do you sometime have a hunch about the time it takes to weld car panels?

If you depend on your scent, it is not perfect.

Although some workers in body-shops are often satisfied when the shape of a car has been restored, sometimes the strength of car is not as good as a brand-new car.

YASHIMA CORPORATION

Everybody knows the name of “high strength steel”.

Only a few people know it well.

Car manufacturers generally use high strength steels on many parts of the car structure. There are requirement for spot welding with high strength steel and extremely hard steels as seen below;

1. 8000A level electricity required
2. High pressure
3. Instantly electrified

If you do not meet these conditions, you can not spot weld perfectly.

In order to weld high strength steel reliably, you must set good specifications and have perfect welding conditions.

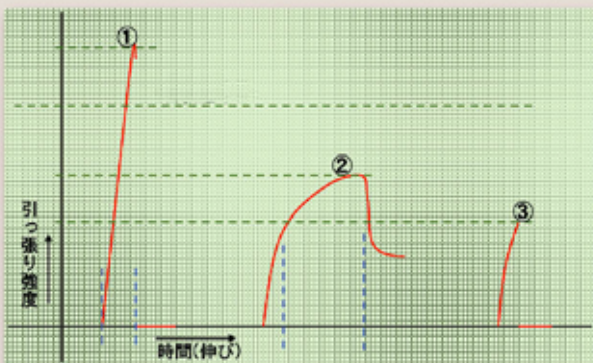
These are essential factors.

If you buy a machine that does not meet the requirements, it may need to be replaced within 3–5 years.

A good spot welding machine not only performs well today, but also in the future.

When choosing the best machine, the one of the most important consideration is that the welding standard will rapidly change in the very near future (within 3–5 years).

Tension shear test for a spot welded joint by INSTRON1123 On the condition of 1.0t and 980N



Welded in a variety of conditions and using a world wide standardized electrode.

→ Obviously up to standard.

No stretch of metal and completely welded. After extremely strong pressure was applied, the area sheared quickly but left a remnant of the welded area.

Welded using unsatisfied conditions, used a sharp electrode and took a very long welding time to complete the welding.

→ Not up to standard.

Stretched and sheared outline of nugget.

Welded using a high welding current and a low welding pressure.

→ Not up to standard.

The welding failed quickly.

RESULT ; Up till now, spot welding machines achieved average welding performance only on normal steel and only if a long time was taken.

However, the newest spot welding machines acting under the necessary conditions are able to perform well on high strength steel.

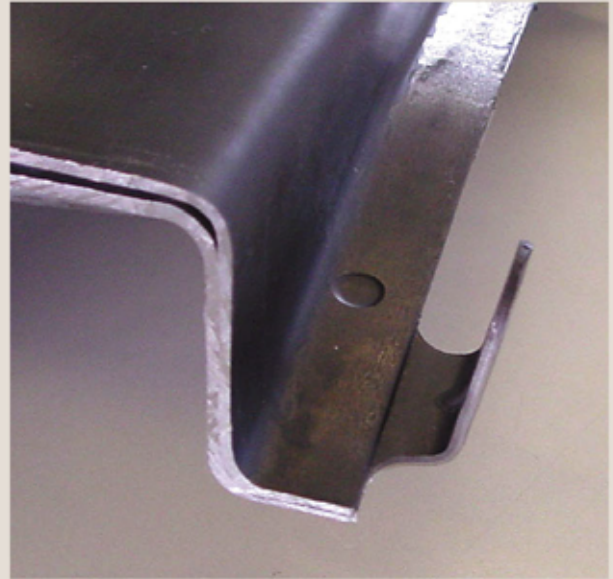
The result of the test confirmed that the best welding performance can be achieved if all requirements are met.



Intelligent *VEGA QC*

Intelligent VEGA QC have been developed to realize accomplished performance of spot welding.

If we look back at the history of spot welding, it shows us that the minimum conditions for quality of spot welding, for example welding performance, functions for setting condition and the size of nuggets. All of them are very important at least minimum conditions of car repairing.



Quality Control.....

It is one of the key words in our industry. Yashima believes that it will become an essential condition in next generation.

Now a day's most products have to have a guarantee of quality and safety control. The car repair is not an exception.

Reason why YSI-24D Ver.2 VEGA QC will bring the same quality as car makers to your body-shop.

- * The strength of weld is guaranteed.
- * The size of nuggets are same as car manufactures.
- * An exceptionally high quality water- cooling system.

YSI-25D Ver.2 VEGA QC-Professional
We originally made YSI-25D Ver.2 for car makers which needed a portable welding machine for their factory.

The power unit is for inverter exclusive use and has the highest quality 18,000A transformer. Maximum power has been utilized within the current capacity by using volumes of flat diodes, and the complete length of the out put cables are over 95% water cooled completely. It makes output electricity ideal for the efficient current. It is ideal for the professional.

You can achieve the welding quality you aim for due to the very efficient and intelligent CPU, called QC.

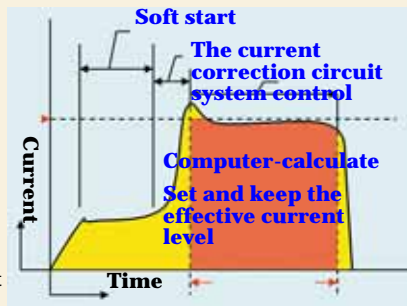
第二世代 QC プログラム

NEXT GENERATION "QC" PROGRAM

You can achieve the welding quality you aim for due to the very efficient and intelligent CPU, called QC.

Input the thickness of the base metal into the machine. The computer will process this data and then display and automatically set the perfect welding conditions
 →Automatically set and show the perfect welding conditions.

(The current correction circuit system controls the level of electrical output so that the machine functions properly. This system is not influenced by any external forces, so that the computer-calculated current level can not be changed.)



Set the thickness of the base metal, and the ideal welding condition will be displayed.



Adjustment for timer and current

Selection of wave Function of welding condition

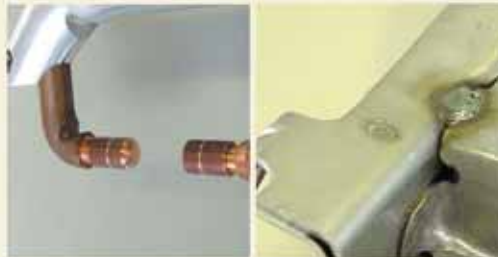
A light on the machine will flash to warn of any bad welding.

YA-5R

MEGA PRESS "YA-5R"



Around 2000N of pressure are put out when you input normal air pressure. Maximum pressure puts out 3000N.



A standard water cooled electrode with the same shape as in car manufacturing is used. The entire electrode is water cooled in order to keep the best-shaped welding nugget.



The U –arm is put to the gun very easily. (U-arm and adapter are optional)

溶接波形

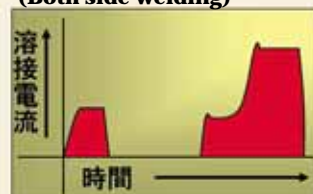
WELDING MODE

Normal mode
(Both side welding)



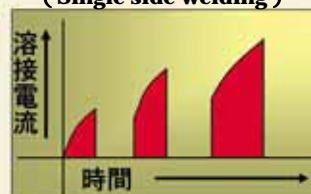
This mode makes the best-shaped welding nuggets using soft start control.

New 3 C system mode
(Both side welding)



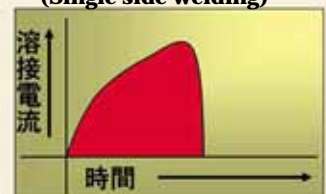
This mode is the newest welding technology for welding with zinc coated hard metals. The curve above has never been possible using older machines.

USP mode
(Single side welding)



This mode is the best for single side welding. Holds welding strength without making welding holes.

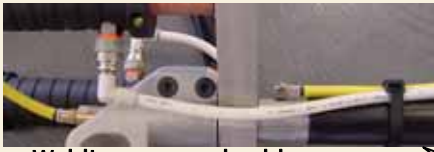
Rising slope mode
(Single side welding)



This mode is for normal single sided performance. Prevents making welding holes.

冷却システム

COOLING SYSTEM



Welding gun and cable

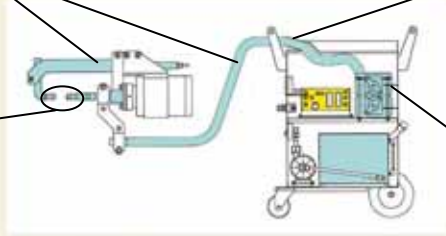
The ideal efficiency of electrification is realized by entirely water cooled cables.



A detachable part of the cable (YSI-25D Ver.2)



The top of the tip



Transformer and diode

テクノロジー

TECHNOROGY

Source of high power...

Special transformer Exclusive used
Inverter Perfect water cooled
Flat and voluminous diode To be
succeed minimum power loss



After two years of research and development we have implemented a full model change of our CPU. As a result full controls over functions and conditions are now possible, as well as a more user friendly interface.



The brain of good performance...

IGBT inverter technology
Intellectual power module



WS-100W

WONDER STICK "WS-100W"



Single sided gun for temporary welding.
This is included in standard accessories!



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JAPANESE ONLY



**You can re-produce
the best “nugget”
same as car
manufactures!**



**MAX10,000A
Inverter
A Perfect water-cooling**

**YSI-24D Ver.2
Intelligent
VEGA QC**

**Highest
performance.
For the expert!**

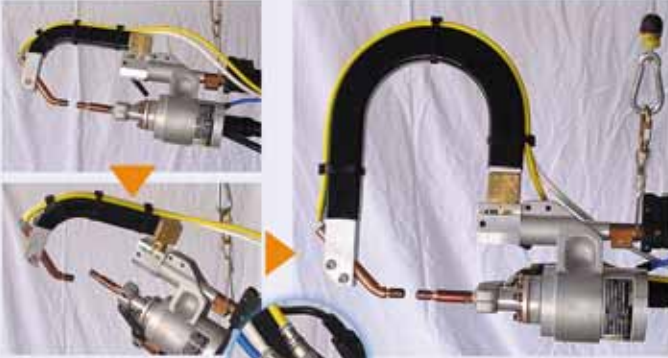


**MAX12,000A
Inverter
A Perfect water-cooling**

**YSI-25D Ver.2
Intelligent
VEGA QC
Professional**

Special U arm for YA-5R

You can switch the type of U-arm very easily!
It takes less than twenty seconds to exchange the water cooled type, and what's more, the air cooled type takes only a few seconds.



When removing the U-arm, simply loosen the lever and turn the U-arm 45 degrees. You can exchange the tubes with just a touch.

And then just fasten the lever! Please ensure the gap between electrodes is small to prevent slipping. Easy and lightweight. A pressure with the power of 1820N is achieved when using the U-arm YAU-530W type.



- YAU-501 : U-arm adapter
- YAU-513W : Water cooled U-arm 130mm
- YAU-513 : Air cooled U-arm 130mm
- YAU-530W : Water cooled U-arm 300mm
- YAU-530 : Air cooled U-arm 300mm
- YAU-560W : Water cooled U-arm 600mm
- YAU-560 : Air cooled U-arm 600mm

STANDARD & OPTIONAL ACCESSORIES

STANDARD ACCESSORIES		
YA-5R	Mega press	1
WS-100W	Wonder stick	1
T-8002W	Earth plate water cooling type	1
CR-1	Cap tip remover	1
WK-1	Wonder kone	1
T-501B	Spot hanger & balancer	1

OPTION		
YEK-982D	Air cooled spot gun (X-type)	
YAU-501	U arm adapter for YA-5R	
YAU-513W	Water cooled U arm 130mm [YA-5R]	
YAU-513	Air cooled U arm 130mm [YA-5R]	
YAU-530W	Water cooled U arm 300mm [YA-5R]	
YAU-530	Air cooled U arm 300mm [YA-5R]	
YAU-560W	Water cooled U arm 600mm [YA-5R]	
YAU-560	Air cooled U arm 600mm [YA-5R]	
H-433	CF cap tip (10 pcs)	
H-434	DR cap tip (10 pcs)	
H-435	D cap tip (10 pcs)	
H-436	EF cap tip (10 pcs)	
H-437	F cap tip (10 pcs)	
H-438	Base tip (10 pcs)	

Optional parts



YEK-982D (X-type air cooled spot gun)

This gun is open to utilization in various ways compare with "C type air gun"

Tips



SPECIFICATIONS

SPECIFICATIONS		YSI-24D Ver.2	YSI-25D Ver.2
Control system		Inverter P.W.M.	
Input voltage		AC 400V 50/60Hz Three phase	
Maximum input power		40KVA	61KVA
Rated input power		16KVA	24KVA
Maximum output current		10.000A	12.000A
Max. pressure at the gun "YA-5R"		0.75MPa air, 2,160N (220Kgf) MAX3,000N(306Kgf)	
Welding capability	Double sided	JIS Z 3140 class A 1.0+1.0+1.0mm	JIS Z 3140 class C 1.2+1.2+1.2mm
	Single sided	2.4+2.4+2.4mm 1.8mm	2.5+2.5+2.5mm 1.8mm
Max. number of point to weld		300 points	500 points
Required breaker		32A (slow type)	32A (slow type)
Input cable		8sqx4, 8m	
Output cable		200sq 3m (water cooling,)	
Cooling system	for transformer, diodes,	Water	
	for output cables, tips and arms	Water	
	for electrical components	Fan	
Output current control		Regulated by the CPU with calculation for required current up to	
Output timer control		Automatically controlled by the CPU	
Air pressure control		Displays required air pressure for YA-5R with calculated by the CPU	
Dimensions	(D x W x H)	720 x 520 x 835 mm	650 x 550 x 860 mm
Weight	(without Gun and Hunger)	85 Kg (115Kg with water)	105 Kg (150Kg with water)

Yashima

YASHIMA CORPORATION

TOKYO. JAPAN

●<http://www.yashima-net.co.jp>

