

TRANSPULS SYNERGIC 2700 ALU EDITION

SPECIAL FEATURES FOR ALUMINIUM

MIG PULS



PERFECT WELDING



ALUMINIUM IS IN A CLASS OF ITS OWN

GENERAL REMARKS

A SPECIAL MACHINE FOR A SPECIAL MATERIAL

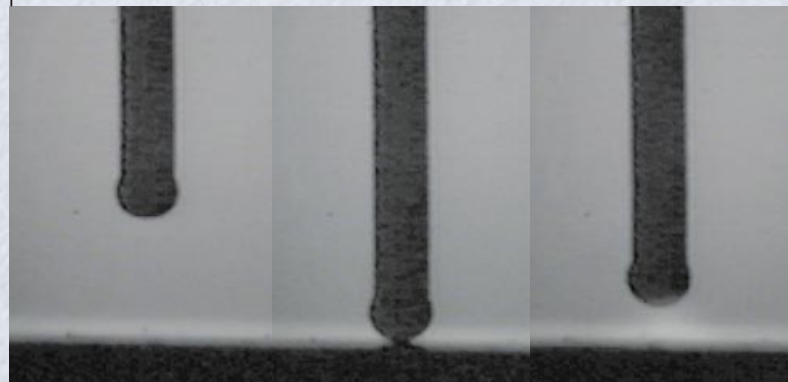
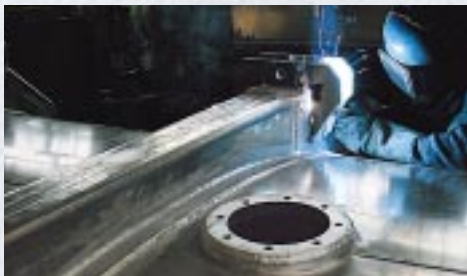
Aluminium is the material used in many branches of industry. During welding, its pronounced thermal conductivity and its oxide layer repeatedly lead to problems that impair the quality of the seam.

Fronius were quick to notice these difficulties – and to develop appropriate solutions. The result is that we can now unveil the first-ever power source to be “tailor-made” for aluminium applications.

CONCEPT

AN ALUMINIUM SPECIALIST ...

We got the idea for the “Alu-Edition” from welding practice: Aluminium applications need “aluminium machines”. The Alu-Edition is based on the fully digitised TPS 2700 MIG/MAG power source, and comes with a bundle of extra functions and accessories for aluminium.



Wirefeed forwards

*Wirefeed stop –
short-circuit recognition*

*Wirefeed backwards –
pilot arc is ignited*

FEATURES FOR ALUMINIUM

TWO PACKAGES

When we developed the special aluminium equipment, we realised that when it came to the welding torches, there were two groups of users – which is why we offer two separate packages:

PACKAGE 1 - JOBMASTER MULTILOCK
for classic aluminium applications

PACKAGE 2 - JOBMASTER PULLMIG
for work with very soft aluminium wires or where longer hosepacks are used

... THAT HAS GOT WHAT IT TAKES

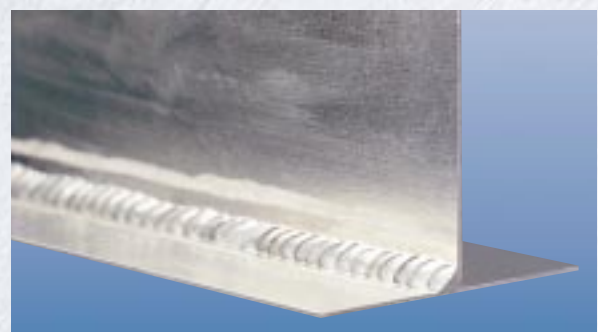
The TPS 2700 Alu-Edition has a control system that has been optimised for the entire aluminium welding process. All the parameters are configured for all aluminium applications. Extra welding programs are integrated for AlMg 4.5 Mn and AlSi 12. In conjunction with the PullMig torch, a special start-up program ensures spatter-free ignition. Furthermore, the machines also come with the specially developed “Alu-SynchroPulse” function, which superimposes a low-frequency pulse over the normal pulse. This results in a quality of seam which is comparable to that of a TIG weld, and ensures that the seam is of flawless appearance.



High-performance torch JobMaster PullMig



Base metal: AlMg 3
Sheet thickness: 25 mm
Filler metal: AlSi 5, Ø 1.2 mm
Shielding gas: Argon



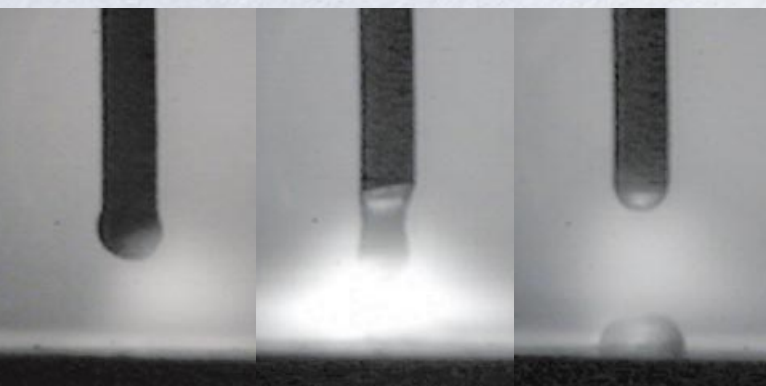
Base metal: AlMg 3
Sheet thickness: 0.6 mm
Filler metal: AlMg 5, Ø 1.2 mm
Shielding gas: Argon



Without start-up program –
fusion defects at beginning of seam



With start-up program –
no fusion defects



Wirefeed backwards –
arc-length is set

Wirefeed forwards – ignition
is complete – pulsed arc
starts up

Metal transfer

PACKAGE 1 – JOBMASTER MULTILOCK

4,075,095,633	TPS 2700 power source, with Fronius central connector or
4,075,095,634	TPS 2700 power source, with Euro
43,0004,0160	Earthing cable 35 mm ² , 3 m
4,045,837	FK 4000-R cooling unit
4,045,839	Travel carriage "Pick Up"
4,047,266,000	JobMaster Multilock hosepack 3.5 m, with F++
44,0350,1606	Wire guide inner liner Graphit-combi or
4,047,266,001	JobMaster Multilock hosepack 3.5 m, with Euro
44,0350,1635	Wire guide inner liner Graphit-combi
34,0350,1855	Multilock torch body set AW 4000 45°

PACKAGE 2 – JOBMASTER PULLMIG

4,075,095,633	TPS 2700 power source, with Fronius central connector or
4,075,095,634	TPS 2700 power source, with Euro
43,0004,0160	Earthing cable 35 mm ² , 3 m
4,045,837	FK 4000-R cooling unit
4,045,839	Travel carriage "Pick Up"
4,100,217	Installation kit for PMR 4000 PullMig control
4,047,316,000	JobMaster PullMig hosepack 8 m, with F++ or
4,047,316,001	JobMaster PullMig hosepack 8 m, with Euro Connector
34,0350,1855	Multilock torch body set AW 4000 45°

CHECKLIST

Synergic mode
64 w welding programs TPS 2700
Start-up program for aluminium
Burnback pulsing (perfect wire end)
Up/Down function
Job memory
Wire-inch without gas
Gas-test button
Remote-control interfaces
Automatic fan and cooling unit cut-off
4-roller drive
Digital display

TECHNICAL DATA

Power source	TPS 2700
Mains voltage	3x400 V*
Mains fuse slow	16 A
Primary continuous power (100 % d.c.)	4.5 kVA
Cos phi (270 A)	0.99
Efficiency	87 %
Welding current range (continuous)	3 - 270 A
Welding current at 10 min/40°C 40 % d.c.	270 A
10 min/40°C 60 % d.c.	210 A
10 min/40°C 100 % d.c.	170 A

Open-circuit voltage	50 V
Operating voltage	14.2 - 27.5 V
Degree of protection	IP 23
Type of cooling	AF
Insulation category	B
Dimensions l/w/h mm	625/290/480
Weight	27.5 kg

* Also available with 3x200V/230V/460V



Cooling unit	FK 4000 R
Mains voltage	400 V
Mains frequency	50 Hz / 60 Hz
Current input	0.5 A / 0.6 A
Cooling capacity at Q = 1 l/min	+20°C / 2000 W
Cooling capacity at Q = max	+20°C / 2300 W
Max. throughput	3.5 l/min.
Max. pump pressure	4.2 bar
Pump	Centrifugal pump
Coolant volume	5.5 l
Weight (without coolant)	16.3 kg
Degree of protection	IP 23
Dimensions (l/w/h) mm	700x280x250



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