



eReam 2.0

Fully electric driven torch cleaning system

cutting | clamping | reaming | spraying



eReam 2.0 – Torch Cleaning System

Efficient cleaning of gas nozzles with eReam 2.0

In automated arc welding, torch cleaning affects both the cost and productivity of the whole process. To positively influence both factors, the eReam 2.0 innovative torch cleaning system offers striking benefits.

Its all-electric drive saves considerable amounts of energy compared to pneumatic drives, is easier to control, complies with the applicable safety regulations and offers good monitoring capabilities. Cleaning with reaming blades proved as the best solution from the point of costs, reliability and manageability. The decision to use electric motors rather than pneumatic systems opened various possibilities concerning control and sensor technology. Thus, the cleaning process runs automatically programmed.

Electric pneumatic comparison table

Features		eReam 2.0	Common Brands	Benefits
Easy Installation / integration	No compressed air supply required	✓	✗	💰 Investment savings on capital expenditures
	No additional safety equipment needed	✓	✗	
	Complete electric design	✓	✗	
	Full digital connections	✓	✗	💰 Investment savings on integration costs
	Optional wire cutter that is upgradable at anytime	✓	(✓)	
Outstanding operational performance	Intelligent process monitoring of the whole cleaning cycle	✓	✗	💰 Reliable and efficient cleaning cycle
	Status information viewed and controlled through the large display panel	✓	✗	
	Parallel movement of both clamping jaws for a secure centering of the gas nozzle	✓	✗	💰 Improve customer production uptime
	Defined reaming stroke distance	✓	✗	
	Automatically repeat cleaning cycle if needed	✓	(✓)	💰 Operation internally controlled via PC board
Safety and Controls	User access control / lockout	✓	✗	💰 Reduction of downtime cause by unauthorized changes to settings
	Manually controlled motors for safer and easier teaching of robot position	✓	✗	
	Controlled spray-pulses for precise application of anti-spatter fluid	✓	✗	💰 Reduction in anti-spatter usage
High reliability, durability and lifetime	Modular assembly design for easier maintenance	✓	(✓)	💰 Lower maintenance costs
	Total metal housing for better cleaning and durability	✓	(✓)	
	Protected inner parts from contamination	✓	(✓)	💰 Improved contaminant management
	Nozzle cleaning is performed outside of unit for easy contaminant collection	✓	(✓)	
	Externally mounted and closed sprayer chamber	✓	(✓)	💰 Lower total cost of ownership

- ✓ = Equipped / Possible
 (✓) = Partially equipped / Partially possible
 ✗ = Not Equipped / Not Possible

eReam 2.0 – Overview



- 1 Cutting**
 - Exact cutting through motor driven cutter-blades
 - All cutter-blades are multi-side sharpened
- 2 Clamping**
 - Force controlled and centered clamping of gas nozzle
- 3 Reaming**
 - Precise stroke length (protection of consumables)
 - Way and force supervision of cleaning process (damage prevention)
- 4 Spraying**
 - Pulse-triggered spray (exact amount of anti-spatter spray)
 - Full/Empty indication of anti-spatter liquid
- 5 Usage / Integration**
 - Display shows status information (directly at the unit or via digital I/O)
 - Easy usage (simple menu navigation)
 - Full integration into safety circuit
 - Manual Mode (Setup mode with minimum speed of all motors)
 - User access control

eReam 2.0 – Versions



P/N: 67-3

eReam 2.0 Basic Unit
including spray unit | without wire cutter

clamping - reaming - spraying



P/N: 67-3 + 67-3-9

eReam 2.0 Basic Unit + Wire Cutter
including spray unit | including wire cutter

cutting - clamping - reaming - spraying

eReam 2.0 – Accessories

Stand for eReam 2.0 and holder for anti spatter spray canister

Part number	Description
67-3-9	Wire Cutter for Torch Cleaning Unit (option)
67-3-10-1	Drip Tray for eReam 2.0
67-4-3	Stand for Cleaning Station, H=750mm (incl. 2 pcs. holder for canister)
67-3-10-2	Adaption Bracket eReam 2.0 to Stand



Suction Probe | Cleaning Fluid

Part number	Description
67-2-29-1	Spray Kit eReam 2.0 (consisting of each 1 pc. suction probe, CF10 canister full, CF10 canister empty, reworked canister cap)
91-102-2-5	Cleaning Fluid 10 canister (5 Liter / 1.321 US Gallons)



Anti spatter spray – replacement canister

Part number	Description
91-102-2-5	Anti spatter spray Cleaning Fluid 10 canister (5 Liter / 1.321 US Gallon)



Signal cable for signal transmission between eReam 2.0 and controller*

Part number	Description
67-3-11-2-10	Signal cable 10-pin Harting HAN High Density plug (10x0.14mm ² / open ends) 10m



Cable for power supply*

Part number	Description
67-3-11-1-10	Supply cable 5pin Harting HAN 3A plug (4x1.50mm ² / open ends) 10m



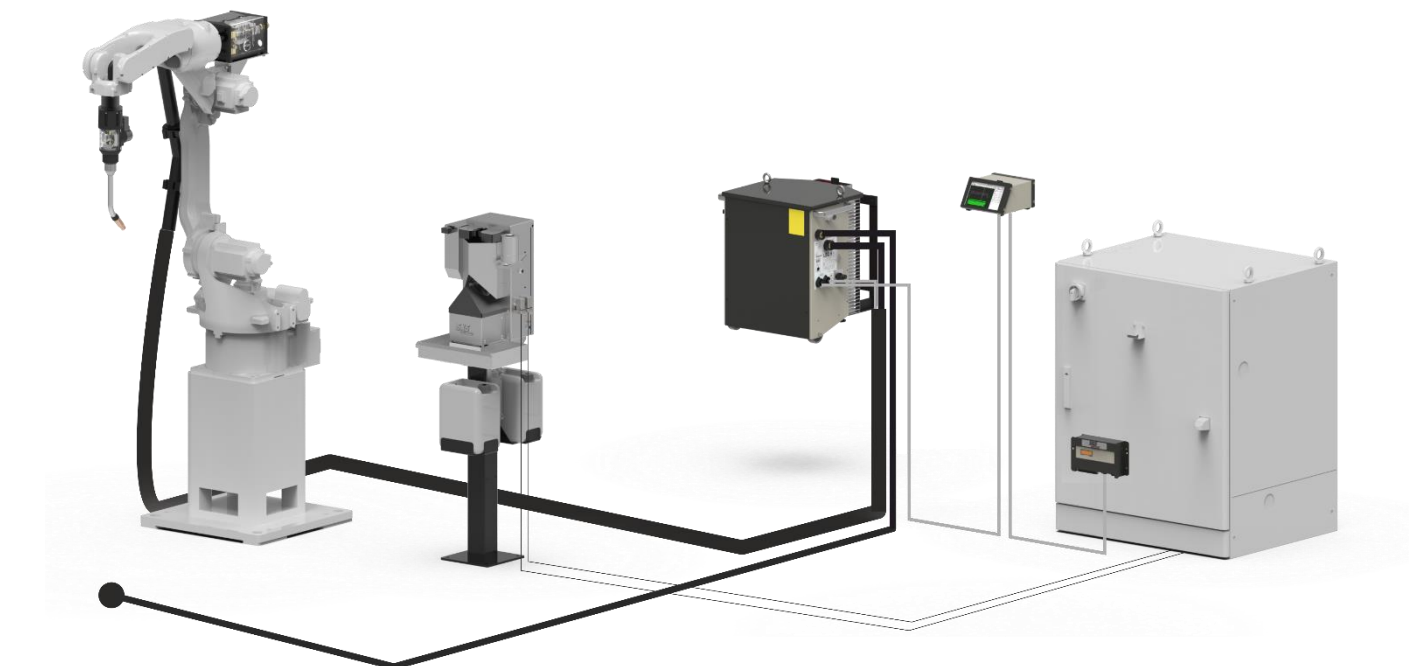
External power supply

Part number	Description
91-38-85303	External power supply 24VDC / 5A for top-hat rail mount IN: 90-132 VAC / 173-264 VAC OUT: 24VDC/5A
91-08-2512-H12473459	Schuko Cable with angle plug, 3-pin, cable end sleeves



*further lengths available on request

eReam 2.0 – Technical specifications



Main specifications

Description	Content
Dimensions (H x W x D in mm)	410 x 278 x 280 (without wire cutter) 410 x 337 x 280 (including wire cutter)
Weight (in kg)	14,3 (without wire cutter) 17,0 (including wire cutter)
Cycle time without wire cutting (in sec.)	~ 6
Cycle Time wire cutting (in sec.)	~ 1
Dimension of mounting holes (W x D in mm)	120 x 220 (4x M6)
Max. possible gas-nozzle outer diameter (in mm)	≤ 34
Max. possible wire diameter (in mm)	≤ 1,6
Compatible anti-spatter fluid	request data sheet from SKS
Feeding of anti-spatter fluid	External (self-priming)
Performance level	PLd C (under test)

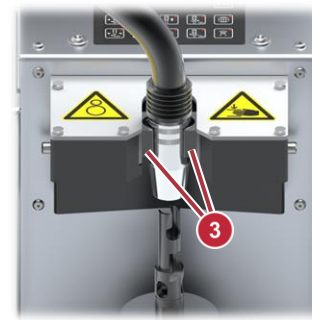
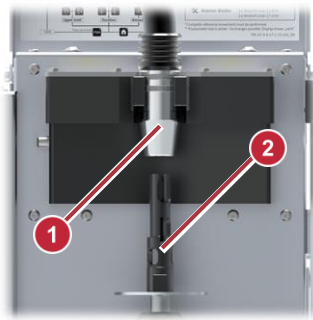
Energy

Description	Content
Power supply	External (power supply cable)
Nominal voltage	24 VDC (+10% / - 5%)
Rated current	5 A
Nominal power	120 W

Connections on back side

Description	Function
Plug 10-pol Harting HAN High Density (X1)	Control cable digital I/Os
Plug 5-pol Harting HAN 3A (X2)	Power supply

eReam 2.0 – Dressing Parts (Power Lock Consumables Series)



1

Gas Nozzle In Use



2

Reamer Blade



3

Clamping Bracket
(2 pcs. needed)



2 - 3

Dress-Kit



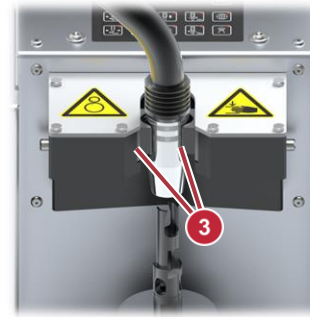
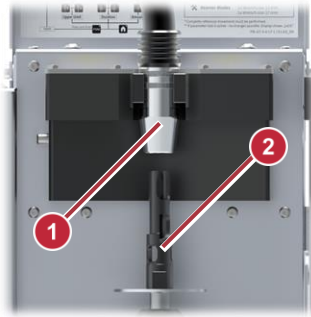
Part Number	Part Number	Part Number	Part Number
41-19-13-BS	67-13-S	67-3-20-1	67-3-32-2
41-19-13-BF	67-13-F	67-3-20-1	67-3-32-3
41-19-13-BR	67-13-R	67-3-20-1	67-3-32-4
41-19-13-TS (41-8-13-TS)	67-13-S	67-3-20-1	67-3-32-5
41-19-13-TF (41-8-13-TF)	67-13-F	67-3-20-1	67-3-32-6
41-19-13-TR (401-4-50-G)	67-13-R	67-3-20-1	67-3-32-7
41-20-13-BF (41-9-13-BF)	67-13-F	67-3-20-3	67-3-32-8
41-20-13-TR (401-6-50-G)	67-13-R	67-3-20-3	67-3-32-9
41-19-15-BS (41-8-15-BS)	67-15-S	67-3-20-1	67-3-32-10
41-19-15-BF	67-15-F	67-3-20-1	67-3-32-11
41-19-15-BR	67-15-R	67-3-20-1	67-3-32-12
41-19-16-TS (401-8-62-G)	67-16-S	67-3-20-1	67-3-32-13
41-19-16-TF (41-8-16-TF)	67-16-F	67-3-20-1	67-3-32-14
41-19-16-TR (401-4-62-G)	67-16-R	67-3-20-1	67-3-32-15
41-20-16-TS (401-81-62-G)	67-16-S	67-3-20-3	67-3-32-16
41-20-16-TF (41-9-16-TF)	67-16-F	67-3-20-3	67-3-32-17
41-20-16-TR (401-6-62-G)	67-16-R	67-3-20-3	67-3-32-18
41-21-13-BS (41-8-113)	67-13-S	67-3-20-8	67-3-32-19
41-21-13-BF (41-8-113-BF)	67-13-F	67-3-20-8	67-3-32-20
41-22-13-TF (41-9-113-TF)	67-13-F	67-3-20-9	67-3-32-21
41-21-15-BS (41-8-115)	67-15-ZK-S	67-3-20-8	67-3-32-22
41-21-15-BF (41-8-115-BF)	67-15-ZK-F	67-3-20-8	67-3-32-23
41-22-15-TF (41-9-115-TF)	67-15-ZK-F	67-3-20-9	67-3-32-24



NOTE

Cleaning of gas nozzles from other manufacturers by eReam 2.0 is possible, too.
Please get in contact with SKS for this matter.

eReam 2.0 – Dressing Parts (Power Lock Plus Consumables Series)



1

Gas Nozzle In Use



2

Reamer Blade



3

Clamping Bracket
(2 pcs. needed)



2 - 3

Dress-Kit



Part Number (previously)	Part Number	Part Number	Part Number
41-19-13-BS (401-48-50-G)	69-13-S	67-3-20-1	69-3-32-2
41-19-13-BF (41-8-13-BF)	69-13-F	67-3-20-1	69-3-32-3
41-19-13-BR (401-42-50-G)	69-13-R	67-3-20-1	69-3-32-4
41-19-13-TS (41-8-13-TS)	69-13-S	67-3-20-1	69-3-32-5
41-19-13-TF (41-8-13-TF)	69-13-F	67-3-20-1	69-3-32-6
41-19-13-TR (401-4-50-G)	69-13-R	67-3-20-1	69-3-32-7
41-20-13-BF (41-9-13-BF)	69-13-F	67-3-20-3	69-3-32-8
41-20-13-TR (401-6-50-G)	69-13-R	67-3-20-3	69-3-32-9
41-19-15-BS (41-8-15-BS)	69-15-S	67-3-20-1	69-3-32-10
41-19-15-BF	69-15-F	67-3-20-1	69-3-32-11
41-19-15-BR	69-15-R	67-3-20-1	69-3-32-12
41-19-16-TS (401-8-62-G)	69-16-S	67-3-20-1	69-3-32-13
41-19-16-TF (41-8-16-TF)	69-16-F	67-3-20-1	69-3-32-14
41-19-16-TR (401-4-62-G)	69-16-R	67-3-20-1	69-3-32-15
41-20-16-TS (401-81-62-G)	69-16-S	67-3-20-3	69-3-32-16
41-20-16-TF (41-9-16-TF)	69-16-F	67-3-20-3	69-3-32-17
41-20-16-TR (401-6-62-G)	69-16-R	67-3-20-3	69-3-32-18
41-21-13-BS (41-8-113)	69-13-S	67-3-20-8	69-3-32-19
41-21-13-BF (41-8-113-BF)	69-13-F	67-3-20-8	69-3-32-20
41-22-13-TF (41-9-113-TF)	69-13-F	67-3-20-9	69-3-32-21
41-21-15-BS (41-8-115)	69-15-ZK-S	67-3-20-8	69-3-32-22
41-21-15-BF (41-8-115-BF)	69-15-ZK-F	67-3-20-8	69-3-32-23
41-22-15-TF (41-9-115-TF)	69-15-ZK-F	67-3-20-9	69-3-32-24
41-16-16-BS	69-16-HD-S	67-3-20-3	69-3-32-29
41-16-16-TF	69-16-HD-F	67-3-20-3	69-3-32-30
41-16-16-TR	69-16-HD-R	67-3-20-3	69-3-32-31
41-16-16-TS	69-16-HD-S	67-3-20-3	69-3-32-32
41-17-16-TF	On request	On request	On request
41-17-16-TR	On request	On request	On request

eReam 2.0 – Dressing Parts (Dual Wire 2.0)

Part Number (previously)	Part Number	Part Number	Part Number
54-10-18-TF (54-5-72-TF)	67-18-F	67-3-20-4	67-3-32-34
54-10-18-TR (54-5-72-TR)	67-18-R	67-3-20-4	67-3-32-35

