PROFESSIONAL PURGING EQUIPMENT

WELD SEAMS WITHOUT TEMPERATURE DISCOLORATION

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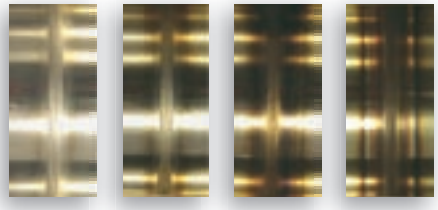
Walter Schnorrer®
WELDING EQUIPMENT

PROFESSIONAL GAS PURGE SYSTEMS FOR STANDARD AND SPECIAL WELDING FABRICATIONS

Walter Schnorrer ApS Welding Equipment is a Danish company founded in 1987, and is a patentee and manufacturer of a wide range of gas purge equipment for use when welding special metals and alloys, in particular stainless steels, titanium, duplex, and super duplex. When welding these special materials it is essential that the welding process takes place in an inert atmosphere in order to prevent oxidation, and this inert atmosphere is often best achieved in a welding chamber. Depending on the metal or exotic alloy to be welded, the residual oxygen in the welding chamber may need to be reduced to less than 50 ppm to obtain a corrosion-resistant result. Oxidation develops through contact with oxygen when the material is heated to welding temperature. After welding has ended it is important to maintain the inert atmosphere until the temperature of the work-piece is below 250ºC, depending on the material. These Schnorrer advanced gas purge systems are under continuous development to meet many demanding technical specifications and functional needs, and to meet these needs economically.



7 ppm 50 ppm 100 ppm 900 ppm

WHY CHOSE A WALTER SCHNORRER® GAS PURGE SYSTEM?

There are many situations in the welding of stainless steels or other special metals where introducing Schnorrer gas purge equipment to the welding procedure can improve weld quality and provide very valuable cost reductions and savings in job time and argon gas consumption.

There are often several methods by which to try and achieve a purged welding environment, and one essential feature of any method is that it always produces the critical low level of oxygen specified for the material. The purge tool used must be robust and must purge efficiently every time, regardless of variables, e.g. the welding position or the presence of pipe elbows and bends.

The figures below compare the costs of using a Walter Schnorrer® purge tool and foam plugs when welding pipes. The nett prices used are 200 Danish kr. per hour and an argon gas price of 30 Danish kr./ m^3.

The Walter Schnorrer® gas purge systems are designed so that a gas flow rate in litres/minute of 10% of the pipe diameter (mm), produces a purge time of only 1½-2½ minutes. It is expected that when welding 20" pipe, the cost of the purge tool will be recovered over 15-20 butt welds. When using foam plugs the purge time is different for each pipe dimension.

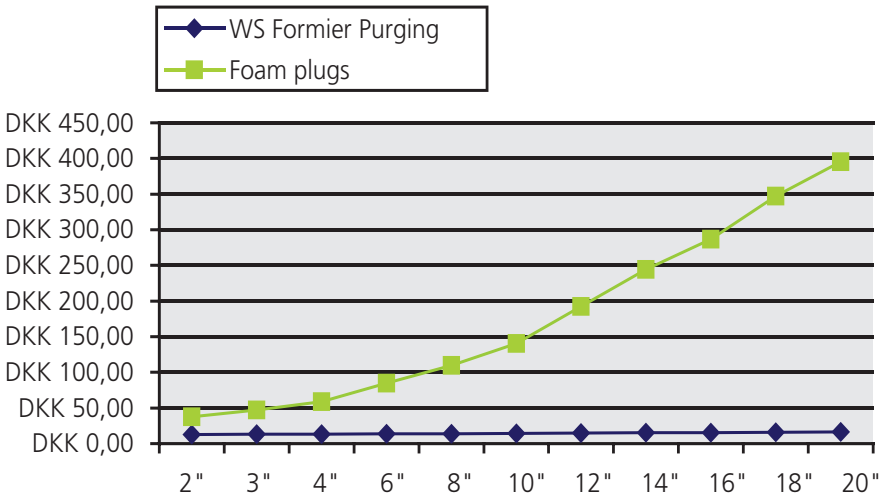
There are many requirements of a purge tool if it is to be a truly efficient and economical method of eliminating oxygen from the welding environment.

Requirements of a purge tool:

- Short and defined purge time to extremely low oxygen level
- Consistent gas flow
- Quick and easy to assemble and dismantle
- Minimum of parts
- Minimum use of tools
- Time and argon gas savings
- Able to withstand high temperatures
- UV-resistant
- Several methods of fixing
- Flexible in use (any pipepart and pipe fitting)
- Efficient and fast gas diffuser
- Useable in all welding positions
- Ability to pull or shoot (with compressed air) the tool through pipe lengths
- Suitable for all welding processes (MIG/MAG, TIG and Plasma welding)
- Robust and with long life

In this catalogue we present our wide range of standard and proven products for the purge of weld assemblies. In addition to this standard product range, we produce tailor-made equipment for special applications.

Patent Numbers:
DK198389, US 4956537, US 5126526, US 5217156, CA 1322229, Aust 617189, HK1005926, EP 348125, 328131, EP 486420, 592055, 1005927.



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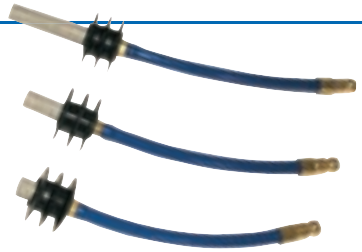
SC PROFI SINGLE

SC Profi Single models can be used for tubes in the smaller dimensions of ID 13 to 43 mm. An SC Profi Single consists of one double- or triple sealing lip and a sintered metal gas finger diffuser available in various lengths (12/25/50 mm). With an SC Profi Single it is possible to weld with an open tube end, when the seam is within 30 mm (or 1 x tube dimension) of the end of the tube.



SC PROFI

The Schnorrer SC Profi range of purge tools is for use in tubes and pipes of internal diameters from 13 mm to 215 mm. The SC Profi is supplied as a complete unit, so there are no loose pieces to "disappear" or be lost. The SC Profi gas cylinder consists only of two triple-sealing lip elements, a gas inlet and a gas outlet, a connecting axis and a connection hose with a rectus nipple.

There are three different kinds of connecting axis; a solid connection is used for straight pipes, a flexible connection for elbows, and a spring connection for when the tool needs to go through several elbows, one after the other. As standard, the SC Profi models 17-45 mm are supplied with a spring connection for use in the relatively sharp elbows met in these pipe sizes, while all other SC Profi models are delivered with a flexible connection.

The gas inlet and outlet are provided with triple sealing lips that prevent them from tilting or falling over inside an elbow, and the design also guarantees that at least one lip will always remain tight to the pipe wall. The discs are UV- and temperature-resistant up to 340ºC for up to one hour.
The gas diffuser is made of sintered metal to ensure long life and is integrated into the inlet disc. This design of gas diffuser provides an even flow of gas and prevents any gas turbulence behind the weld, thereby minimising the risk of oxygen in the welding chamber while, at the same time, achieving an extremely short purge time. These extremely short purge times result in valuable cost savings in gas and time and the weld seams are without temperature discoloration.

SC PROFI, COMPLETE

Supplied with 2 discs (340°C), flexible connection and 8 mm fix/release gas connection

- The SC Profi range is used in tubes and pipes of internal diameter from 13 mm-215 mm
- Substantial cost savings in gas and time
- Gas flow rates in litres/minute when purging are 10% of the internal diameter (mm) of the tube or pipe
- Patented triple-sealing lip elements that do not tilt or fall over inside an elbow
- Patented gas diffuser
- Extremely suitable for orbital welding, only 8 mm back pressure
- Temperature resistant to 340°C for up to one hour
- UV-resistant
- Suitable for TIG, MIG/MAG, and Plasma welding
- The tool is one complete unit
- Goes round elbows and bends
- Can be "shot" through a pipe by means of compressed air
- Fast positioning

Number	Type	ID	Flow	Purge time
1700017	SC Profi ϕ 17 mm with 80 mm spring connection	13-16 mm	3 l/min	1,5 min
1700021	SC Profi ϕ 21 mm with 80 mm spring connection	16-20 mm	3 l/min	1,5 min
1700024	SC Profi ϕ 24 mm with 80 mm spring connection	18-23 mm	3 l/min	1,5 min
1700030	SC Profi ϕ 30 mm with 80 mm spring connection	23-29 mm	3 l/min	1,5 min
1700039	SC Profi ϕ 39 mm with 80 mm spring connection	29-38 mm	4 l/min	1,5 min
1700045	SC Profi ϕ 45 mm with 80 mm spring connection	36-43 mm	5 l/min	1,5 min
1700057	SC Profi ϕ 57 mm with 120 mm flex connection	42-53 mm	6 l/min	1,5 min
1700060	SC Profi ϕ 60 mm with 120 mm flex connection	45-58 mm	6 l/min	1,5 min
1700070	SC Profi ϕ 70 mm with 120 mm flex connection	55-67 mm	7 l/min	1,5 min
1700082	SC Profi ϕ 82 mm with 150 mm flex connection	68-80 mm	8 l/min	1,5 min
1700095	SC Profi ϕ 95 mm with 150 mm flex connection	79-92 mm	8 l/min	1,5 min
1700117	SC Profi ϕ 117 mm with 150 mm flex connection	98-114 mm	11 l/min	1,5 min
1700145	SC Profi ϕ 145 mm with 150 mm flex connection	120-136 mm	13 l/min	1,5 min
1700176	SC Profi ϕ 176 mm with 150 mm flex connection	150-168 mm	16 l/min	1,5 min
1700182	SC Profi ϕ 182 mm with 150 mm flex connection	155-170 mm	16 l/min	1,5 min
1700220	SC Profi ϕ 220 mm with 250 mm flex connection	190-205 mm	22 l/min	4,0 min
1700231	SC Profi ϕ 231 mm with 250 mm flex connection	195-215 mm	23 l/min	4,0 min

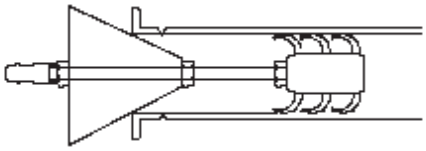
SC PROFI FLANGE-CONE

SC Profi Flange-Cone is designed for the welding of flanges, couplings and short pipe lengths.

The tool consists of three parts: an aluminium cone, a gas connection pipe and the well known and proven SC Profi disc with an integrated sintered stainless steel gas diffuser and in a special design. The construction of the gas diffuser guarantees a laminar flow of gas without turbulence during purging and the welding process. Gas flow* rates in litres/minute during purging are 10% of the internal diameter (mm) of the pipe, and typical purging times* are less than 1,5 minutes.

A further advantage of the Flange-Cone is that it can be used as an alignment tool to hold the pipe sections together and centre them at the same time. SC Profi disc in the special design is available in the same dimensions as the SC Profi discs. For larger dimensions please ask.

** Or less depending of dimension and length of the connection.*



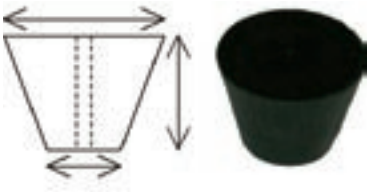
- Complete unit
- Aligns pipe sections
- Quick fitting
- Short purge time

PURGE PLUGS

The plugs are made of the same heat resistant (340°C) and strong silicon material as all our professional purge tools.

- Cost-saving
- Simple solution
- Silicon 340ºC

Type 1



Type 3

Number	Type	D1	D2	H	ϕ
901020	Plug 10-20 mm Type 1	10 mm	20 mm	19 mm	5 mm
901024	Plug 10-24 mm Type 1	10 mm	24 mm	30 mm	5 mm
901530	Plug 15-30 mm Type 1	15 mm	30 mm	30 mm	5 mm
901836	Plug 18-36 mm Type 1	18 mm	36 mm	36 mm	5 mm
903048	Plug 30-48 mm Type 1	30 mm	48 mm	32 mm	5 mm
901019	Plug 10-19 mm Type 2*	10 mm	19 mm	19 mm	
900925	Plug 9-25 mm Type 2*	9 mm	25 mm	29 mm	
901531	Plug 15-30 mm Type 2*	15 mm	30 mm	30 mm	
901837	Plug 18-36 mm Type 2*	18 mm	36 mm	34 mm	
903148	Plug 31-48 mm Type 2*	31 mm	48 mm	33 mm	
902234	Plug 22-34 mm Type 3	22 mm	34 mm	20 mm	5 mm
903248	Plug 31-48 mm Type 3	31 mm	48 mm	33 mm	5 mm
904865	Plug 48-65 mm Type 3	48 mm	65 mm	32 mm	5 mm
906581	Plug 65-81 mm Type 3	65 mm	81 mm	29 mm	5 mm
908010	Plug 80-100 mm Type 3	80 mm	100 mm	37 mm	5 mm

** Type 2 is similar to Type 1 but witout central hole ϕ*

PURGE TOOL KITS COMPLETE FOR 3/4" TO 6" PIPES

The tool kit includes:
SC Profi 24 mm to 176 mm, solid and flexible connections, gas hose complete with couplings, 10 metre insulated pull wire with stainless steel snap hook, 50 l/min gas flowmeter and aluminium tape.

23 parts delivered in a Toolbox Raaco Compact 37.

PURGE TOOL KITS COMPLETE FOR FLANGE CONES/PIPES IN DIMENSIONS FROM 3/4" TO 6"

The tool kit includes:
SC Profi special inlets from 24 to 176 mm, SC Flange cones from 16 mm to 168 mm, nipples and connections, 8 metre gas hose complete with couplings and a 50 l/min gas flowmeter.

23 parts delivered in a Toolbox Raaco Compact 37.

RANGE OF PLUGS FOR 1/2" TIL 3" TUBES

Comprising:
1 Plug 10-24 mm Type 1
1 Plug 15-30 mm Type 1
1 Plug 22-34 mm Type 3
1 Plug 31-48 mm Type 3
1 Plug 48-65 mm Type 3
1 Plug 65-81 mm Type 3
1 Gas finger 10x25 mm
1 SC gas hose PVC

WS & WS PLUS GAS CYLINDERS

The WS and WS Plus Gas Cylinders are available for pipes from 145 mm to 1000 mm diameter. These tools have two heat-resistant sealing lips, with the WS Purge Gas Cylinder being heat-resistant to 280ºC for up to one hour, and the WS Plus Gas Cylinder taking 340ºC for up to one hour. The tools have extremely short purge times of only 2½ minutes for all dimensions, a feature that no other purge tools provide.

When welding thin-walled pipes with only few elbows, it is recommended to use the WS Gas Cylinder, fitted with a pull ball if necessary. The WS Plus Purge Gas

WS and WS Plus Gas Cylinder

Cylinder is suitable for critical applications in the offshore industry and, if mounted with an optional pull system, it goes through several bends without any problems.

The difference between the WS and the WS Plus is in the design and heat-resistant material of the sealing lips. By changing the lips, e.g. the sealing lips on a 265 mm WS can be replaced with 12" lips, it is possible to weld three different pipe diameters with the same cylinder. The product difference is illustrated in the photograph, which shows the WS Plus with deeper sealing lips. This ensures that the tool is always tight to the pipe wall, including those applications where bends are encountered. Please see special section about additional equipment for elbows.

As shown, the two tools overlap each other. The choice of product depends on the particular welding application. Factors to consider are, the internal diameter, the number and geometry of the bends, the distance the tool is to be pulled, the wall thickness, any pre-heat, and etc. Only then can a decision be made.

Tailor-made sizes available.

WS and WS Plus Gas Cylinder

- Purge time 2½ minutes
- Effective purge
- Fast and easy to position
- Complete unit

WS Plus Gas Cylinder

- Pipe from fra 8-40"
- Heat-resistant to 340ºC
- Can be pulled through bends with help from a pull system

WS Gas Cylinder

- Pipe from 150-1000 mm
- Heat-resistant to 280ºC
- Can be pulled through bends with help from a pull ball

WS GAS CYLINDER

Part number	Type	ID mm
1000150	WS Gas cylinder ϕ 150 mm 280°C	145-155
1000160	WS Gas cylinder ϕ 160 mm 280°C*	155-165
1000200	WS Gas cylinder ϕ 200 mm 280°C	198-208
1000210	WS Gas cylinder ϕ 210 mm 280°C*	205-215
1000250	WS Gas cylinder ϕ 250 mm 280°C	245-255
1000265	WS Gas cylinder ϕ 265 mm 280°C*	255-267
1000300	WS Gas cylinder ϕ 300 mm 280°C	295-307
1000316	WS Gas cylinder ϕ 316 mm 280°C*	311-321
1000350	WS Gas cylinder ϕ 350 mm 280°C*	340-350
1000400	WS Gas cylinder ϕ 400 mm 280°C*	390-400
1000450	WS Gas cylinder ϕ 450 mm 280°C*	440-450
1000500	WS Gas cylinder ϕ 500 mm 280°C	490-500
1000550	WS Gas cylinder ϕ 550 mm 280°C*	540-550
1000600	WS Gas cylinder ϕ 600 mm 280°C	590-600
1000700	WS Gas cylinder ϕ 700 mm 280°C	690-700
1000750	WS Gas cylinder ϕ 750 mm 280°C*	740-750
1000800	WS Gas cylinder ϕ 800 mm 280°C	790-800
1000900	WS Gas cylinder ϕ 900 mm 280°C	890-900
1001000	WS Gas cylinder ϕ 1000 mm 280°C	990-1000

** Can be used with WS Plus sealing lips*

WS PLUS GAS CYLINDER

Part number	Type	ID mm
1815008	WS Plus Gas cylinder 8" 340°C	180-215
1815009	WS Plus Gas cylinder 9" 340°C	215-240
1820010	WS Plus Gas cylinder 10" 340°C	240-265
1820011	WS Plus Gas cylinder 11" 340°C	265-290
1825012	WS Plus Gas cylinder 12" 340°C	290-315
1825013	WS Plus Gas cylinder 13" 340°C	315-330
1830014	WS Plus Gas cylinder 14" 340°C	330-360
1835016	WS Plus Gas cylinder 16" 340°C	370-400
1840018	WS Plus Gas cylinder 18" 340°C	420-450
1845020	WS Plus Gas cylinder 20" 340°C	470-500
1855024	WS Plus Gas cylinder 24" 340°C	570-600
1855026	WS Plus Gas cylinder 26" 340°C	625-655
1855028	WS Plus Gas cylinder 28" 340°C	675-705
1871030	WS Plus Gas cylinder 30" 340°C	725-755
1875032	WS Plus Gas cylinder 32" 340°C	770-805
1875034	WS Plus Gas cylinder 34" 340°C	825-860
1886036	WS Plus Gas cylinder 36" 340°C	870-905

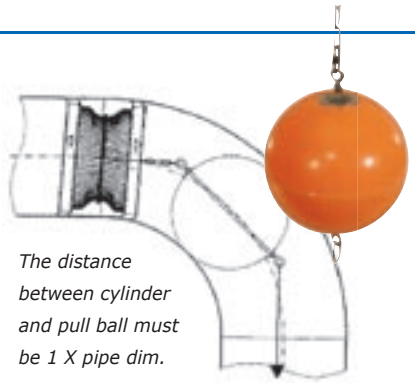
PULL EQUIPMENT FOR PURGE TOOLS

One of the main advantages of Schnorrer professional welding systems is that the tools can be pulled around pipe bends and elbows, and even through several elbows one after the other. There are different solutions depending on the dimensions and the type of pipe. A common feature when using the purge tools is that the use of French chalk will minimize the frictional resistance.

Cable reel for gas hose and pull wire

WS GAS CYLINDER

WS Gas Cylinder can be pulled through a bend with the help of a pull ball. The adjacent picture shows the correct way to fit the pull ball, that is, with the distance between the pull ball and the WS Gas cylinder being 1 X pipe diameter. The use of the WS Plus Cylinder is advised if it is known that the tool has to go through several elbows.



The distance between cylinder and pull ball must be 1 X pipe dim.

Pull ball for WS & WS Plus

Number	Type
1200150	Pull ball 150 (f125)
1200160	Pull ball 160 (f155)
1200200	Pull ball 200 (f200)
1200250	Pull ball 250 (f230)
1200300	Pull ball 300 (f280)
1200400	Pull ball 400 (f360)

WS PLUS CYLINDER

WS Plus Cylinder can be pulled through several elbows without problems when fitted with a complete console. It is very important that the balls are fitted correctly, which is 3 mm away from the pipe wall. This makes it possible to pull the tool across welded seams. For very problematic bends the console can be used together with a pull ball, as described for the WS Cylinder.

Complete console for WS Plus

Number	Type	
1201005	8-9″	6 balls
1201010	10″	6 balls
1201011	11″	6 balls
1201012	12-16″	6 balls
1201015	18-24″	8 balls
1201020	32-36″	12 balls

WS PLASMA

WS Plasma fitted with the spring and extra balls can be pulled through all bends. It is essential that the balls be fitted correctly, as described above.

WS pull for WS Plasma

Number	Type
1201600	Consol for Plasma
1201000	Ball SS

SC PROFI

These tools are made with three sealing lip elements that ensure an effective gas purge even when pulling an SC Profi through pipe elbows. The standard purge tool is supplied with a flexible connection, but it can be advantageous to fit the tool with a spring connection. The advantage of this spring connection is that it adapts exactly to the bore of the pipe, a feature that is particularly useful in tubes below 2½″ bore, where you often meet relatively sharp elbows.

WS OXY I

The WS Oxy I is a hand-held, battery-operated oxygen analyzer. The measuring range varies from 1000 ppm to 10 ppm. The device has a maintenance-free zirconium cell with extended operating life. It is supplemented with an innovative display that represents operating state in color. This "traffic light system" provides the operator with a high level of comfort: since the operation state can be shown in colors visually, there is no need to read the exact values. The software and the operation method of the device are identical to the WS Oxy II. Furthermore, it has a loud integrated buzzer.

The reports of the device (buzzer, colors, flashing of the readings, etc.) are very simple and user-programmable.

The device is offered in different versions. Standard device includes analyzer, transport box, a plug-in power supply unit, the manuals in German and English, as well as the calibration certificate. In addition, a car charger cable can be acquired (cigarette lighter).

The Premium version has multiple outputs for documentation, PC connection, Blueototh, 0-5 VDC analog and an RS 232-cable for a printer.

- Temperature regulated zirconium cell
- Graphic display screen changes color relative to process and function
- Built-in recognition for 110V-240V power
- Portable for remote and dificult acces sites using 7V 3200 mAh rechargeable batteries (4 Hour)
- Integrated programmable sound function
- Multilanguage: english, german, danish
- Low permeability measuring hose for accurate measurements
- Connects via RS 232 interface, Bluetooth, 0-5 VDC (Orbitec)
- Software updateable
- Cigarette lighter charger available
- Data logging of up to 250 entries (PC Documentable but without date & time)
- Delivered in a Transportbox

WS PURGE UMBRELLA

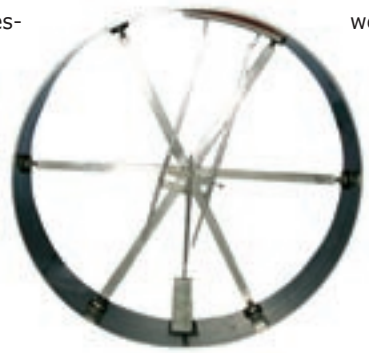
- For nozzle pipes on tubes and vessels
- Sintered metal diffuser
- Heat-resistant silicon 280°C

WS PURGE SYSTEM FOR VESSELS ϕ800 TO ϕ3000 MM

TIG Gas Drag adjustable

Plasma Gas Drag 280 Amp, water-cooled

This assembly is designed for welding vessels fitted with an inspection chamber and in the stated range of sizes. The vessel must be placed on turning rolls, and the legs on the column are adjustable so that the tool can be used for more than one size of vessel. The gas drag is held between the 11 o'clock and 1 o'clock positions by a balance weight when the vessel turns. The setting-up time is about 5-10 minutes, and the tool can be dismantled and removed through inspection chambers of 350 mm ϕ or more. The vessel must be circular ± 30 mm and suitable for TIG-welding. There is a special Schnorrer water-cooled gas-drag for plasma welding.



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WS PURGE PROFILE

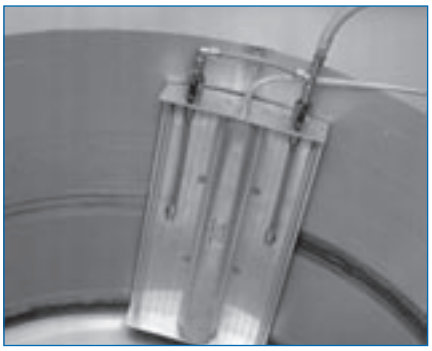
This series of WS Purge tools has been developed for larger pipes, flat or angled sheet metals, vessels and other assemblies. The tool is taken into the unit under vacuum and, in this way, can be used for fixing and as a purge tool. The tool is made with three chambers; two for vacuum and one for purge gas, and the gas diffuser is designed to prevent turbulence in the purge chamber. The discs are temperature-resistant to 180ºC for up to 1 hour. The tool can be used both inside and outside of a vessel and can be fitted with one or two vacuum chambers, as required.

WS ALUMINIUM PURGE PROFILE

WS Aluminium Purge Profile with two vacuum chambers is used when welding corners in square vessels, and can be supplied with one vacuum chamber and one sealing lip. Purge time 2-3 minutes.

WS ALUMINIUM PURGE PROFILE

with two adjustable vacuum chambers is suitable for longitudinal seams on flat or angled sheet metals, or on inner or outer longitudinal components in vessels of ID above 300 mm, the WS Aluminium Purge Profile is adjustable for angles from 90-180° by exchanging the end sheet. The profile is made in lengths up to 6 metres. Purge time 2-3 minutes.



WS FLEXIBLE PURGE GAS PROFILE

Flexible SS purge profile made of stainless steel and fitted by vacuum on an 800 mm vessel. Can be mounted individually inside or outside circular or oval vessels in sizes above 600 mm ϕ.

Purge time 2-3 minutes.

WS TACK WELD SEAM PROFILE GAS CHAMBER

The use of purge gas is often omitted when tack welding. This tool makes it quick and easy to use purge gas during tacking. The tool is secured by suction clamps (the number depending on the length) for about 2 minutes.

No purge time required. Can be delivered for 90° angle joints and for longitudinal seams.

WS PLASMA

This tool is especially developed for the plasma welding and cutting processes. The plasma tools consist of two discs, a gas inlet and a gas outlet and a connection piece. When using the plasma welding process, the connection piece must be made of copper. This purge tool is also extremely suitable in situations where one uses preheat and for welding T-joints in tubes of more than 8" diameter.

The tool can be used for other welding processes as well but the purge time is then longer than when using other standard Schnorrer tools. Suitable for use in bends, the tool can be delivered with an extra pull system, consisting of balls and a spring connection piece of optional type and length.

- Suitable for Plasma and other processes
- Temperature-resistant WS Plus discs
- 340ºC for max 1 hour
- Can be pulled through bends
- Suitable for preheated pipes/tubes
- Extremely suitable for T-tubes >8"

WS VARIO

The WS Vario is of similar design and dimensions as the WS Plasma, but is fitted with a large pipe-connection that reduces the size of the purge chamber. Suitable when welding T-tubes above 8" diameter. Despite the reduced purge chamber, there is a relatively long purge time.

- Temperature-resistant WS Plus discs
- Shorter purge time than WS Plasma
- Extremely suitable for T-tubes
- Suitable for preheated pipes/tubes

WS PLASMA			WS VARIO	
Number	**Type**	**Diam ID (mm)**	**Number**	**Type**
1900008	WS Plasma 8"	180-215	1950008	WS Vario 8"
1900009	WS Plasma 9"	215-240	1950009	WS Vario 9"
1900010	WS Plasma 10"	240-265	1950010	WS Vario 10"
1900011	WS Plasma 11"	265-290	1950011	WS Vario 11"
1900012	WS Plasma 12"	290-315	1950012	WS Vario 12"
1900013	WS Plasma 13"	315-330	1950013	WS Vario 13"
1900014	WS Plasma 14"	330-360	1950014	WS Vario 14"
1900016	WS Plasma 16"	370-400	1950016	WS Vario 16"
1900018	WS Plasma 18"	420-450	1950018	WS Vario 18"
1900020	WS Plasma 20"	470-500	1950020	WS Vario 20"
1900024	WS Plasma 24"	570-600	1950024	WS Vario 24"
1900026	WS Plasma 26"	625-655	1950026	WS Vario 26"
1900028	WS Plasma 28"	675-705	1950028	WS Vario 28"
1900030	WS Plasma 30"	725-755	1950030	WS Vario 30"
1900032	WS Plasma 32"	770-805	1950032	WS Vario 32"
1900034	WS Plasma 34"	825-860	1950034	WS Vario 34"
1900036	WS Plasma 36"	870-905	1950036	WS Vario 36"

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WS GAS DRAG FOR TITANIUM

When welding special materials, e.g. titanium, outside of a welding chamber, there is a choice of two standard Schnorrer WS Gas drags, the WS Gas drag SS, and WS Alu Gas drag. Common to both WS Gas drags is the effective gas diffuser that prevents swirls and turbulence in the welding zone. One WS Gas drag is made of stainless steel with a sintered metal gas diffuser, and the advantage of this WS Gas drag SS is that most sizes take more than one dimension. The other standard model, the WS Alu Gas drag is made of aluminium, and here the packing is very simple to change and economical to use. The Standard WS Gas drags are available from stock for pipes in all dimensions and for sheet materials.

Tailor-made WS Gas drags can be made for special applications, while water-cooled WS Gas drags are available for plasma welding.

WS Gas drag

WS Plasma Gas drag

WS Gas drag for laser

WS Gas drag for corners

WS ARGON CHAMBER

The WS Argon Chamber is designed to produce excellent results when welding critical fabrications in titanium or other exotic materials and is widely used in the aerospace and nuclear industries. The WS Argon Chamber is usually of the standard circular design and delivered in ID1000 mm and ID1500 mm sizes, but square or rectangular models are available on request. Common to both models is the gas diffuser system, which ensures a laminar flow of gas without turbulence. The typical purge time for a WS Argon Chamber ID1000 mm is only 20 minutes at 100 l/min argon gas flow rate.

GENERAL TERMS

Edition: September 2009.

Delivery Time: Orders received by 2.30 p.m. and for stock items will be despatched the same day.

Prices: DKK or Euro. Prices in the catalogue are exclusive of postage, packing and VAT. We reserve the right to increase prices as a result of increases in the cost of labour, raw material, fluctuations in the rates of exchange, etc.

Patent numbers: DK198389, US 4956537, US 5126526, US 5217156, CA 1322229, Aust 617189, HK1005926, EP 348125, 328131, EP 486420, 592055, 1005927.

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