

GS-HYDRO

FLARING & GROOVING MACHINES



GS-PIPING WITHOUT WELDING™



General Information

GS-Hydro supplies or rents a range of high quality flaring and grooving machines specially designed for prefabrication of hydraulic and other piping systems. Machines are available from light-duty, portable machines to workshop and heavy-duty factory type machines. For larger projects a mobile workshop with all necessary machines is available by request.

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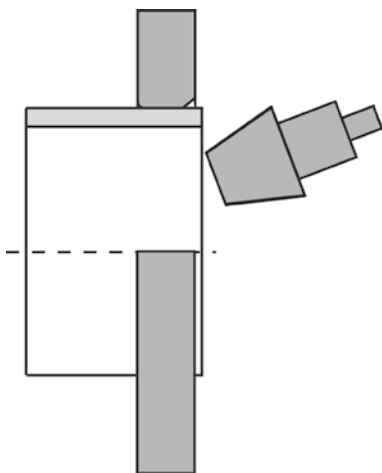
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Flaring

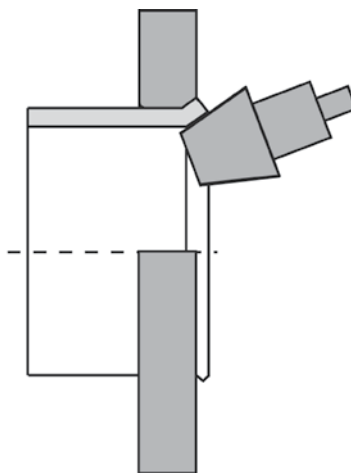
GS-flaring technology

GS-Hydro has developed a number of machines designed for cold flaring of tubes and pipes from 6 to 608 mm in diameter. The machines are suitable for the flaring of a wide range of materials including carbon and stainless steel, copper-nickel etc.

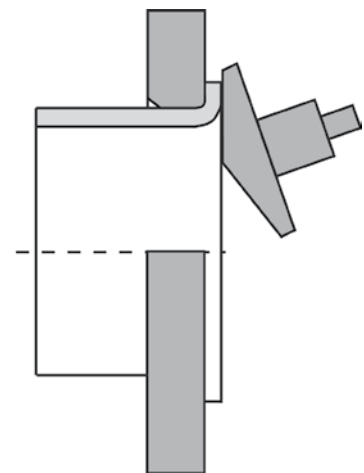
All the machines use a 'rolling cone' method to achieve a perfect surface finish which is suitable for JIC-37° and GS-37° and GS-90° Flare Flange Systems.



1. Flaring starts by clamping the pipe or tube in the correct size dies, and applying a small amount of oil or grease.



2. The 37° cone rotates around a central axis as it is pushed against the tube or pipe and this process flares out the tube or pipe into the die.



3. To make a 90° flare a different tool flattens out the 37° flare.

GS-Flaring machines are available from light, portable machines to heavy-duty factory-type machines for the flaring of the following tube and pipe sizes:

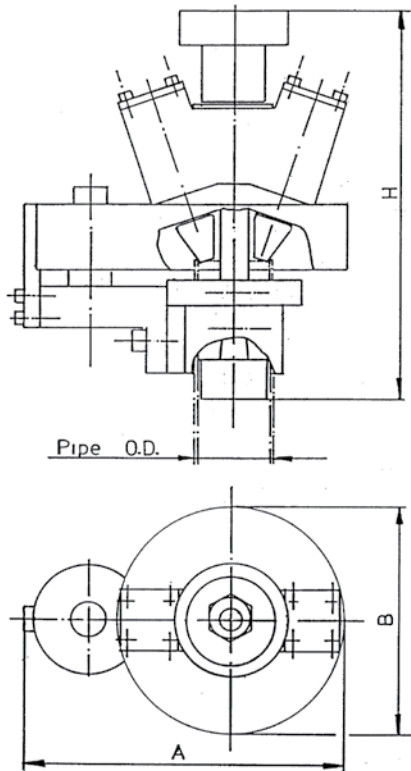
Portable	O.D. x maximum wall thickness
GSP-Machines	57–368 mm x 9 mm (37°), 57–368 mm x 5.5 mm (90°)
Workshop	
FlarePower 60	6–60 mm x 5 mm
FlarePower 170 S/E	6–170 mm x 7 mm
FlarePower 275 E	6–275 mm x 8 mm
Factory	
GSF-220N-F/FHD	20–220 mm x 8 mm
GSF-400N-E	133–406 mm x 8.8 mm
GSF-600N-E	250–608 mm x 11 mm

Portable flaring machines

GSP-Flaring Machines

The portable GSP-machines will permit on-site production of flange collars (37° and 90°) for both installation and repair jobs. These lightweight machines are operated by air and are thus ideal to work in fire-protected areas in offshore or similar applications.

GSP-machines can flare various pipe materials: Carbon steel, stainless steel and Cu/Ni.



Dimensions for GSP-machines

Model	O.D.	A	B	H	Max. W.T.
GSP 60-A	57.0/60.0/60.3	230	170	290	3.0
GSP 90-A	73.0/76.1/88.9	280	190	300	3.9
GSP 115-A	114.3/115.0	320	250	310	5.5
GSP 168.3-A	159.0/168.3	360	290	330	5.5
GSP 220-A	219.1/220.0	420	350	340	6.0
GSP 273-A	267.0/273.0	480	420	360	6.5
GSP 324-A	323.9	520	450	390	5.5
GSP 368-A	355.6/368.0	510	500	390	5.5
GSP 406-A	406.4	Available on request.			

Workshop flaring machines

GS-FlarePower -series

GS-Hydro offers a range of three different FlarePower-machines, designed for cold flaring of tubes and pipes from 6 mm up to 275 mm in outside diameter. FlarePower-machines are suitable for 37° and 90° flaring of a wide range of materials, including carbon steel, stainless steel and copper-nickel alloys. All machines are using the "rolling-cone" method in order to achieve perfect surface finish to JIC-37° fittings and GS-37°/GS-90° Flare Flange connections.



GS-FlarePower 60-S

Type:
 60-S Standard (hand pump)
 60-S/Air Air driven



GS-FlarePower 170-EH

Type:
 170-S Standard (hand pump)
 170-C Standard (hand pump) on wagon
 170-EH Electro hydraulic
 170-EHC Electro hydraulic and with hydraulic clamping



GS-FlarePower 275-EHC

Type:
 275-EH Electro hydraulic
 275-EHC Electro hydraulic and with hydraulic clamping

GS-Flaring Machine	GS-FlarePower 60	GS-FlarePower 170	GS-FlarePower 275
Size range • Tube or pipe max. O.D. • Max. wall thickness	60 mm 6 mm	170 mm 7 mm	275 mm 9 mm
Power supply	Standard electric motor, 230 V 1-phase, 230 V or 400 V 3-phase, 50 or 60 Hz	Standard electric motor, 230 V 1-phase, 230 V or 400 V 3-phase, 50 or 60 Hz	Standard electric motor, 230 V 1-phase, 230 V or 400 V 3-phase, 50 or 60 Hz
Dimensions (approx.) • Overall length • Width • Height	680 mm 370 mm 410 mm	1000 mm 700 mm 1300 mm	1000 mm 700 mm 1500 mm
Weight	kg	500 kg	kg

Factory flaring machines

GSF-series

The GSF range of flaring machines have been developed for heavy duty flaring of larger tube and pipe sizes in carbon steel, stainless steel and copper alloys.

The GSF 220-N/-HD is utilised for 37° and 90° flaring of tubes and pipes from 20 to 220 mm in diameter. The controls of the machine are easy to use and a gauge shows the flaring pressure. A full set of flaring cones is located on the machine.

The flaring head and power unit can easily be separated allowing easy transportation. Additionally, by connecting the units with hydraulic hoses flaring can be carried out in hazardous areas such as on an oil drilling rig.

The GSF 400-N-E and GSF 600-N-E machines are larger and heavier in order to cope with cold flaring of tubes and pipes with diameters as large as 400 mm and 600 mm respectively.



GSF 220-N/-HD



GSF 400-N-E



GSF 600-N-E

GS-Flaring Machine	GSF 220-N/-HD	GSF 400-N-E	GSF 600-N-E
Size range • Tube or pipe O.D. • Wall thickness	20–220 mm < 9 mm	133–406 mm < 10 mm	250 – 608 mm < 11 mm
Power supply	Standard electric motor 380 V, three-phase, 3 kW	Standard electric motor 380 V, three-phase, 8 kW	Standard electric motor 380 V, three-phase, 8 kW
Operation	Hydraulic	Hydraulic	Hydraulic
Dimensions (approx.) • Overall length • Width • Height	900 mm 500 mm 1400 mm	1510 mm 790 mm 1740 mm	1900 mm 1130 mm 1630 mm
Weight	650 kg	2000 kg	3000 kg

GSF-flaring machines with automatic working circuit

Automatic working circuit -series

GS-Hydro's GSF 28-A, GSF 42-A and GSF 65-A are flaring machines with automatic working circuit and touch panel programming. Those machines are designed for serial production, and it is very easy to achieve perfect sealing surface into various piping materials.

Flaring operation is done by using GS-Hydro's rolling cone method. This ensures exact, defect free and mirror like sealing surface. All power functions are electro controlled, and because of universal stopper adjustment this machine can be used also for other types of pipe connections than GS-37° flare only.



GSF 28-A



GSF 42-A

Machine Type	GSF 28-A	GSF 42-A	GSF 65-A
Pipe O.D. range	6...28 mm	6...42 mm	6...65 mm
Max. Pipe wall thickness	2.5 mm / St.52 or AISI 316L	4 mm / St.52 or AISI 316L	5 mm / St.52 or AISI 316L
Working circuit	4--8 seconds	4...10 seconds	6...12 seconds
Length/width/height	1200/900/1300 mm	1800/900/1700 mm	2200/800/1800 mm
Weight	300 kg	350 kg	900 kg
Power supply	400 V / 50 Hz / 16 A	400 V / 50 Hz / 16 A	400 V / 50 Hz / 16 A
Power	1.5 kW	3 kW	4 kW
Operating / working pressure	250 bar / 200 bar	250 bar / 200 bar	250 bar / 200 bar

Grooving machines

Portable Grooving Machine "TTS"

TTS split frame machines are having a light aluminium body, which is very rigid as well as stable for the machining operations. The light weight and split frame makes it very practical to use in tight places and under on-site conditions. All machines are available with in-line or right angle pneumatic or electrically driven motors.



Machine sizes and respective tube sizes	
Machine Type	Pipe O.D. [mm]
TTS NG 73	21.3 – 60.3
TTS NG 127	66 – 114.3
TTS NG 168	115 – 150
TTS NG 219	168.3 – 190
TTS NG 273	219.1 – 250

Workshop Grooving Lathe

Grooving Master lathe GM 150

- Equipped with D'Andrea machining head TA220
- Grooving up to pipe OD 150 mm

This machine can groove tube sizes from OD 26 to 150 mm

Weight: 2300kg

Length: 2.10m

Height: 1.65m

Width: 1.00m

To be rented with supervisor.



Workshop container

THE WORKSHOP CONTAINER CONSISTS OF:

- 1 off Overhead Grane
- 1 off Grooving Machine Lathe for 1/2" to 8" and 66 to 220 mm pipe.
- 1 off Cold Saw
- 1 off High pressure Washer

Total weight: 7000 kg

The container can be rented on a daily basis.

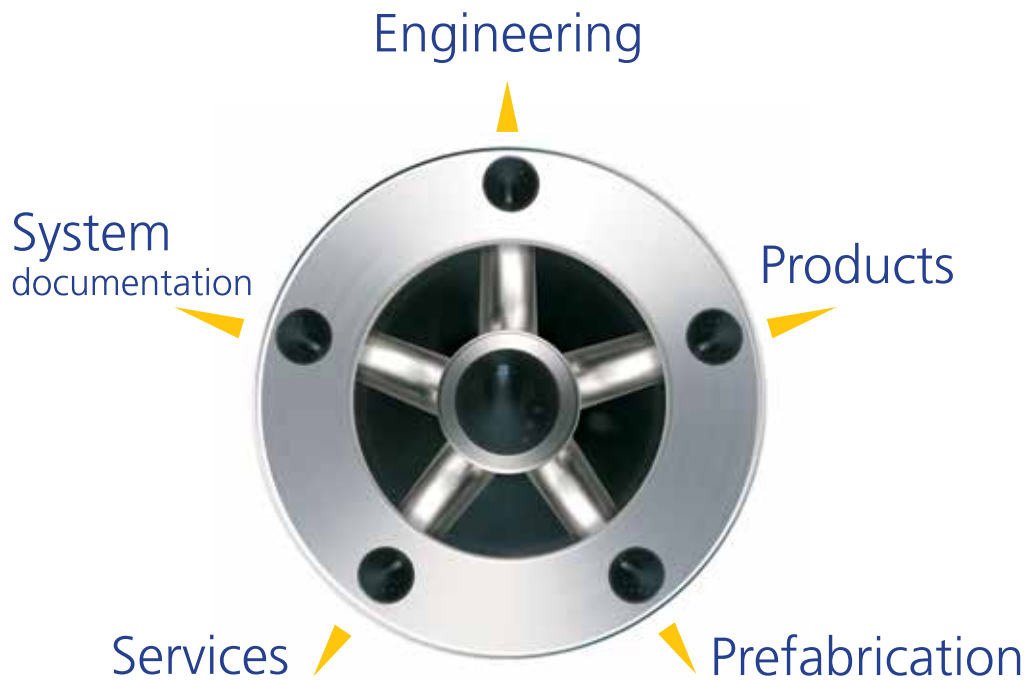
Other machines on request.





GS-Hydro is the original provider of non-welded piping solutions with numerous benefits for a wide variety of demanding applications. We create value together with our customers by providing innovative fluid transfer solutions which enable safe operation, reduced environmental impact and lower total cost of ownership. We deliver our piping and hose solutions globally in more than twenty-five countries through own companies and partners.

GS-Hydro system offering



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