



Th. WORTELBOER B.V.

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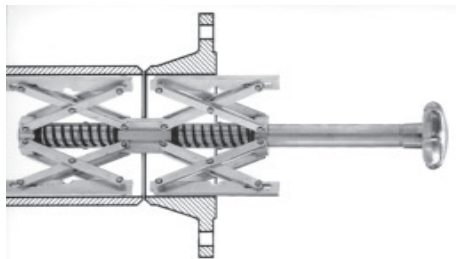
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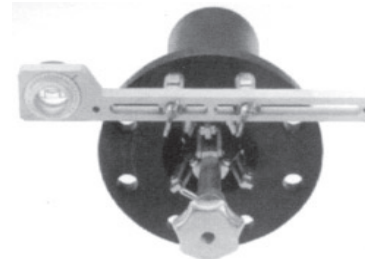
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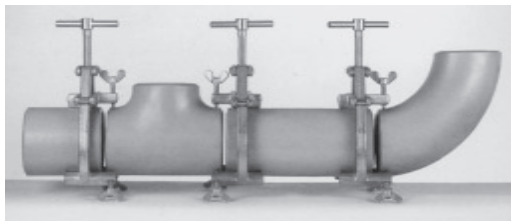
1

Centering and clamping tools for pipe-flange $\text{\O} 15 \text{ mm. to } 950 \text{ mm.}$



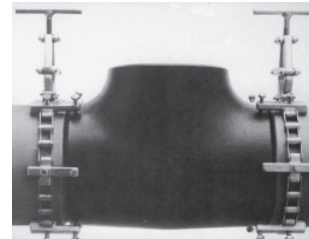
2

Flange spirit levels



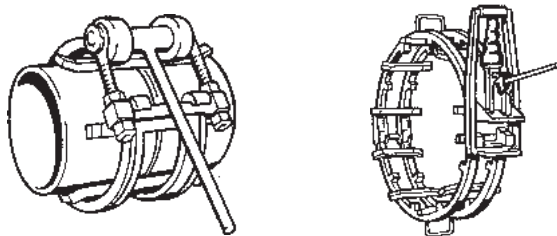
3

Pipe clamps for pipe $\text{\O} 1'' \text{ to } 14''$



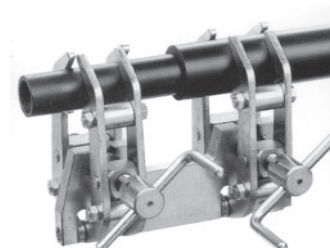
4

Chain clamps from pipe $\text{\O} 4''$



5

External pipe clamps for pipe up to $\text{\O} 80''$



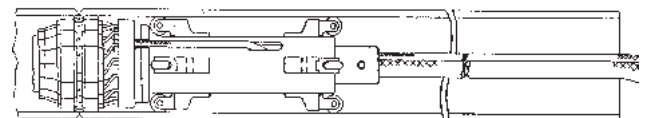
6

Centering and clamping tools for pipe-pipe $\text{\O} 10 \text{ mm. to } 330 \text{ mm.}$



7

Pipe- and bar end preparation machines for $\text{\O} 6 \text{ mm. to } 76 \text{ mm.}$



8

Pipe clamps for use with purging gas for pipe up to $\text{\O} 24''$



9

PBM Pipe end preparation machines for pipe $\text{\O} 1/2'' \text{ to } 8''$



10

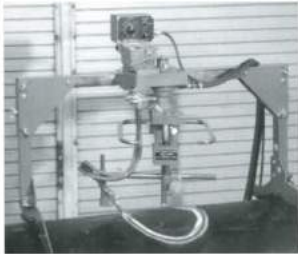
PBM Pipe end preparation machines for pipe $\text{\O} 2'' \text{ to } 30''$



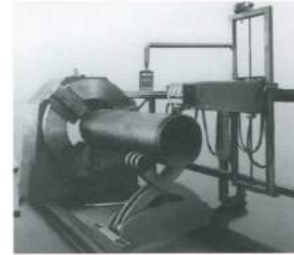
Pipe flame cutting machines for pipe $\text{\O} 2''$ to 56''



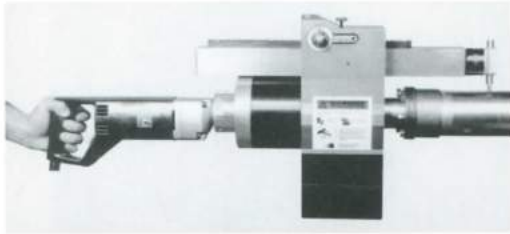
Pipe flame cutting machines for pipe $\text{\O} 10''$ to 120''



Pipe flame cutting machines



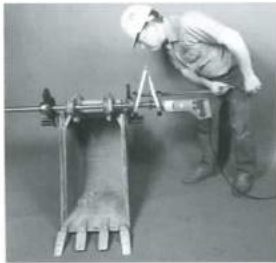
Computerized control pipe flame cutting machines



Climax Portable lathes



Climax Portable key mills



Climax Portable boring bars



Climax Portable milling machines



Climax Portable flange facing machines



Valve lapping/grinding machines



Flange spreaders - mechanical and hydraulic

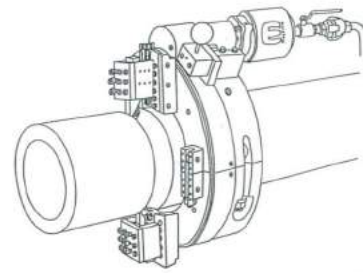


Plate chamfering machines



23

Pipe cutting- and beveling machines for pipe Ø 10 mm. to 325 mm.



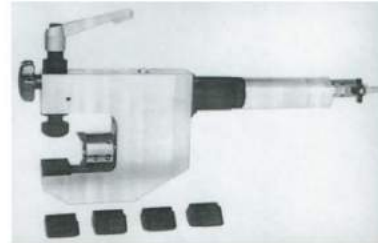
24

Pipe cutting- and beveling machines for pipe Ø 2" to 60"



25

Pipe cutting- and beveling machines for pipe Ø 250 mm. to 3000 mm.



26

Pipe beveling machines for pipe Ø 15 mm. to 120 mm. O.D.



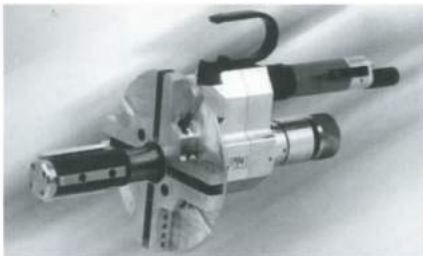
27

Pipe beveling machines for pipe Ø 6 mm. to 168 mm. O.D.



28

Pipe beveling machines for pipe Ø 12 mm. to 106 mm. I.D.



29

Pipe beveling machines for pipe Ø 50 mm. to 215 mm. I.D.



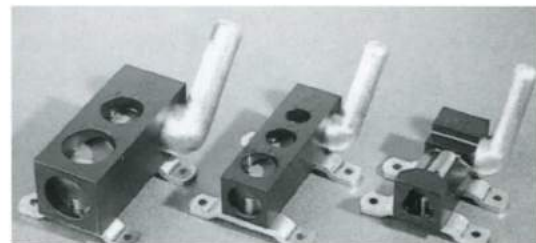
30

Pipe beveling machines for pipe Ø 80 mm. to 860 mm. I.D.



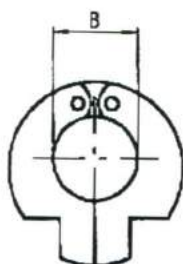
31

Pipe beveling machines for pipe Ø 175 mm. to 1500 mm.



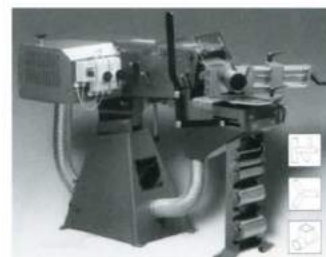
32

Pipe notchers for square pipe-pipe connections (manual or electric)



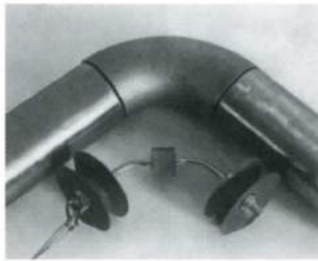
33

Sawing guides for square sawing of pipe DN 10 to DN 100



34

Universal pipe notching machines for pipe-pipe connections



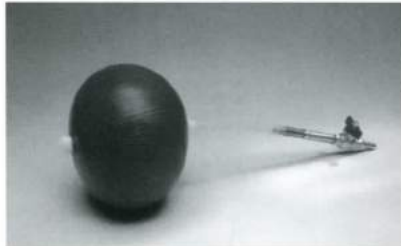
35

Purch gas cilindrs



36

Pipe stoppers for testing pressure to 0,3 bar



37

Balloons for 0 to 10 bar testing pressure



38

Pipe stoppers for testing pressure to 10 bar - small sizes



39

Pipe stoppers for testing pressure to 10 bar - large sizes



40

Pipe stoppers for testing pressure to 217 bar



41

Pipe stoppers for testing to 690 bar



42

Pressure pumps to 3650 bar testing pressure



43

Bending machines for pipe to Ø 12"



44

Welding manipulation and roller standards - electric driven



45

Several pipe jacks



46

Several mark off tools



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Producing weld preparations is done in seconds

PBM PIPE END PREPARATION MACHINES

for

- heat exchanger manufacturing • offshore constructions
- apparatus manufacture • equipment constructions
- shipbuilding • machine construction • pipeline construction

History of Th. Wortelboer BV

Th. Wortelboer BV was established in 1946 as a technical trading company. The delivery programme developed more and more in the direction of pipe constructions from 1965. Since then Th. Wortelboer BV has specialised in supplying and later manufacturing of the required tools and machines for piping constructions and pipe end preparation.



The PBM-6 pipe end preparation machine was introduced in 1993 under the motto "If it isn't available on the market then we will make it ourselves". The increasing demand for larger machines led successively to the development of the PBM-12 (1995), the PBM-16 (1996), the PBM-24 (1999) and the small PBM-4 (2005). The largest machine yet constructed was delivered at the beginning of 2006. This is the old style PBM-30 that is suitable for thick-walled pipes with a diameter of no less than 30".

Since the export of the first PBM machines, Th. Wortelboer BV has grown into a dynamic organisation where the interests of the customer are foremost. The development and production of (special) machines for pipe end preparation now form part of the core activities. Th. Wortelboer BV is the world market leader in the field of stationary pipe end preparation machines.

Th. Wortelboer BV is continually developing new machines for machining (thick-walled) tubes and pipes.

Quality, a long lifetime, ease of operation and naturally the wishes of the customer are the most important design requirements. Machines that are designed by Th. Wortelboer BV are characterised by their enormous operational reliability and very low maintenance costs. In short, simplicity, precision and speed.

SIMPLICITY

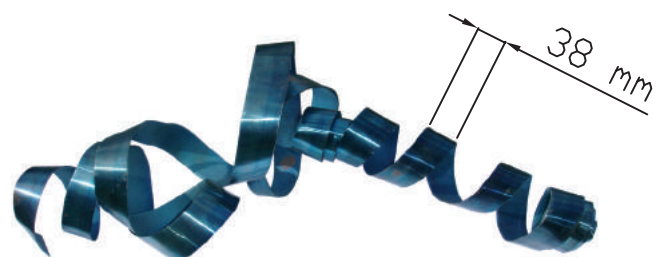
The pipe can be clamped rapidly in the prism-clamp. There is no need to use different parts etc. for different sizes. The robust prism-clamp fits all pipe sizes within the range of the machine. The machines have restricted speeds and the cutting tool head can easily be moved by means of a large hand wheel or an (optional) electric motor drive.

PRECISION

The robust and rigid construction of the machine in combination with the heavy guides makes the PBM series one of the most stable and precise machines on the market. This helps the welding process and is of the greatest importance when using a welding robot.

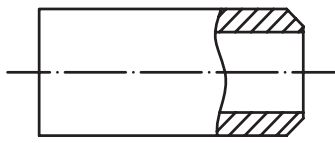
SPEED

The prism-clamp and the unique insert-holders mean that there is no need for setting time. The minimal handling of materials required and the simple operation of the machine restricts machining time to an absolute minimum. The table below gives examples of machining times on various PBM machines. The times apply to preparation for a weld joint at 30°.

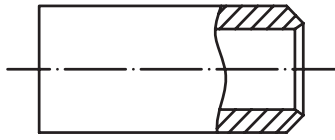
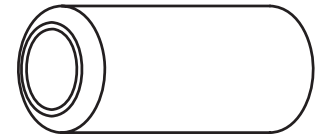


pipe diameter in inches (mm)	wall thickness (mm)	material	approx. machining time
4" (114,3)	6 mm	St 37	15 sec.
6" (168,3)	12 mm	St 37	30 sec.
6" (168,3)	25 mm	St 37	2 min.
10" (273,0)	19 mm	Duplex stainless steel	2 min.
12" (323,8)	12 mm	Duplex stainless steel	1 min.
16" (406,4)	13 mm	St 37	45 sec.
20" (508,0)	20 mm	Duplex stainless steel	1 min.
24" (609,6)	25 mm	Duplex stainless steel	1 1/2 min.

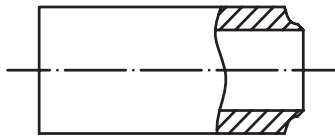
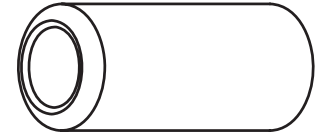
Machining examples for end preparation/beveling



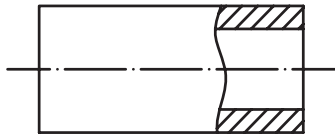
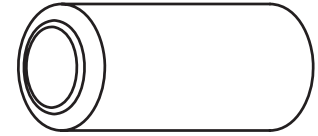
V-joint welding edge
(various angles beveling and facing
possible simultaneously)



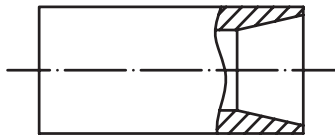
V-joint welding edge with internal beveling
(various angles beveling and facing
possible simultaneously)



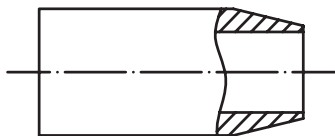
"Compound" welding edge with two different
angles (various combinations of beveling
angles possible)



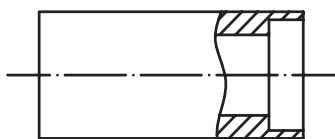
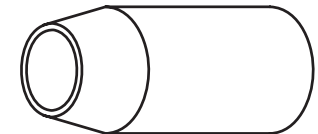
Facing
(100% square)



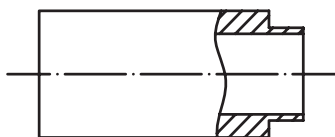
Internal taper
(various taper angles and facing possible
simultaneously)



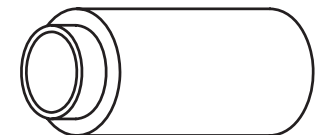
External taper
(various taper angles and facing possible
simultaneously)



Internal straight chamber
(facing possible simultaneously)



External straight chamber
(facing possible simultaneously)



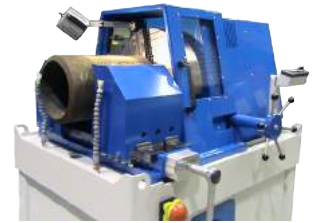
The end preparations shown as examples are just a few of the many possibilities. Four grooves are available in the tool head of the PBM machines that can each accommodate one insert holder. The possibility of combining different insert holders (so different machinings) with each other means that it is possible to create near enough every desired welding and end-preparation form.

PBM-4, PBM-6-SCR, PBM-6, PBM-8 and PBM-16

The basis of the PBM series is formed by the new PBM-4 with clamping range from 1/2" to 4" (20 mm - 116 mm outside diameter). The number in the title of the machine refers to the maximum clamping range in inches for that particular machine. For example, the PBM-16 has a clamping range up to 16" (435 mm). A complete overview with specifications of all PBM machines can be found in the middle of this brochure.



PBM-8



PBM-16



PBM-4



PBM-6(-SCR)

MAKING WELD PREPARATIONS IS A MATTER OF SECONDS

The performance determines the choice of a machine. Th. Wortelboer BV supplies the fastest working machine for machining (thick-walled) pipes made from duplex steel, stainless steel or hasteloy, for example.

The minimal handling of materials required and the very short machining time make the PBM end preparation machines to some of the fastest on the market.

SELF-CENTRING PRISM-CLAMP

A self-centring prism-clamp holds the pipe firmly in place. The clamp can be manually opened and closed rapidly using a large ratchet. All PBM machines have an optional electric drive for the prism-clamp.



LARGE CHIP TRAY

The large chip tray has a separator to filter the chips out of the coolant. All PBM machines have a built-in pump for cooling fluid.

POWERFULL ELECTRIC MOTORS

The more than adequate electric motor of the PBM-4 has two speeds and can be operated very simply. As well as the adequate motor, the PBM-6(-SCR), PBM-8 and PBM-16 have a frequency regulator that makes that all speeds in the range are available.



PBM-30

The PBM-30 pipe end preparation machine is (at present) the largest in the range of PBM machines. Because of the size of the machine and because it is made in a very economical way it is especially suited for pipes up to 20 mm wall thickness. The PBM-30 is also equipped with a frequency regulator.

The insert holders of the largest PBM machine is suitable for carbide inserts with a cutting length of 16 mm. Thanks to the robust way in which this PBM machine is constructed this machine is still one of the fastest available.



PBM-30

PBM-16/PBM-30 CNC-controlled



The newest development is to execute these two models with a CNC-control. The consequence of this is that the machine will have an easy to operate screen. In this screen you can choose the bevel form you want to make (e.g. V-J-compound form). Then you fill in your dimensions and the machining is done automatically.

Because of the CNC-control, the two models have an axial as well as radial feeding system. Also because of the way it is controlled the speed can go up and consequentially the chips will be smaller, but the machining time will be similar and as fast as always.

Another advantage is that these machines will have an unlimited capacity in wall thickness. Also special internal turning (complex forms as well) can be done easily with this system.



PBM-4



PBM-6-SCR



PBM-6

clamp range ¹ (mm)	20 - 116	20 - 170	46 - 180
clamp range ¹ (pipe in inches)	½" - 4"	½" - 6"	1 ½" - 6"
turning range (mm)	10 - 116	10 - 170	30 - 180
voltage ² (Volt)	400V - 3ph - 50Hz	400V - 3ph - 50Hz	400V - 3ph - 50Hz
motor power (kW)	3,0	5,5	5,5
clamping	prism-clamp	prism-clamp	prism-clamp
clamp operation	manual	manual	manual
machining	carbide inserts	carbide inserts	carbide inserts
max. wall thickness ³ (mm)	13 (in 1 machining)	25 (in 1 machining)	25 (in 1 machining)
feed operation	manual	manual	manual
feed stroke (mm)	100	100	100
speed (r.p.m.) at 50 Hz.	100 - 250	40 - 100	40 - 100
size LxWxH (mm)	1100 x 900 x 1500	1250 x 980 x 1650	1250 x 980 x 1650
weight (kg)	900	1.450	1.450

options

	PBM-4	PBM-6-SCR	PBM-6
electrically operated clamp	●	●	●
electrically operated feed	●	●	●
electrically operated pipe-stop	●	●	●
semi-automatic	●	●	●
built-in cooling pump	standard	standard	standard
copying system	-	-	●
TRB roller bench	●	●	●
maintenance contract	●	●	●



PBM-8

PBM-16

PBM-30

CNC-models

21 - 225 / 280	60 - 435	215 - 780	60 - 435 / 215 - 780
1/2" - 8" / 10"	2" - 16"	8" - 30"	2" - 16" / 8" - 30"
10 - 225 / 280	40 - 435	170 - 780	
400V - 3ph - 50Hz	400V - 3ph - 50Hz	400V - 3ph - 50Hz	400V - 3ph - 50Hz
5,5	5,5	7,5	5,5 / 7,5
prism-clamp	prism-clamp	prism-clamp	prism-clamp
manual	manual	manual	axial / radial electric
carbide inserts	carbide inserts	carbide inserts	carbide inserts
20 (in 1 machining)	20 (in 1 machining)	20 (in 1 machining)	unlimited
manual	manual	manual	manual
100	100	100	150
40 - 100	35 - 100	35 - 100	75 - 225 / 50 - 150
1250 x 980 x 1650	1790 x 1380 x 1660	2000 x 1600 x 1800	
1.450	2.800	4.500	

PBM-8	PBM-16	PBM-30	
●	●	●	(1) Clamping range and turning range can be reduced using optional insert jaws.
●	●	●	
●	●	●	
●	●	●	(2) Other voltages/frequencies can be supplied on request.
●	●	●	(3) The maximum wall thickness is unrestricted by machining the pipe several times in succession.
standard	standard	standard	
●	●	●	
●	●	●	
●	●	●	

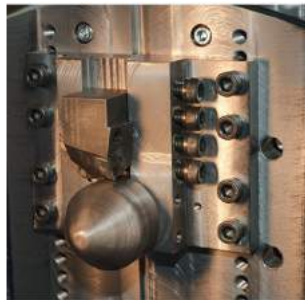
● = optionally available

Copying system for PBM machines

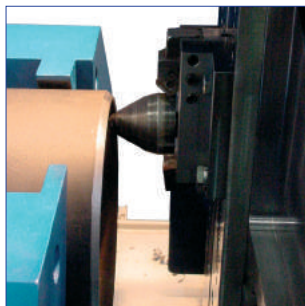
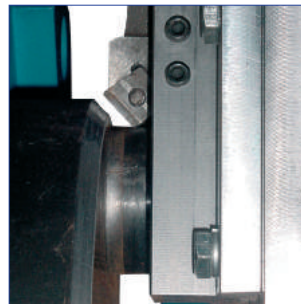
A copying system can be supplied for the PBM-16 and PBM-30. The copying system allows thin-walled and/or non-round pipes to be machined very precisely and the desired end preparation edge can be made despite the fact that the material is not round.



The copying system can be fitted to existing machines (PBM-16 or PBM-30). The original tool head is replaced in that case by a tool head with the copying system that is mounted directly on the main shaft.



The tool head with copying system for the PBM-16 has a single carriage with one copying roll and one insert holder. The copying system for the PBM-30 has two carriages, each fitted with a copying roll and one insert holder.



The copying roll runs against the inside of the pipe while the pipe is being machined. A spring-loaded and carriage construction applies a continuous force to the copying roll. The carbide insert holder is connected to the copying roll through a sledge so following its movement exactly and, therefore, the contours of the pipe. The result is an end preparation that has an equal face/land all around. This is necessary if a J or Y bevel has to be made whereby the face/land has to be exactly the same all the way round. There is also a copying system available that runs against the outside of the pipe.

Roller benches type TRB

The TRB roller benches have been especially designed for use in combination with the PBM pipe end preparation machines. The trough system with steel diabolo rollers makes it possible to roll the pipe easily by hand into the machine.

Just as the PBM machines the TRB roller benches are extra strong and robust and exceptionally suitable for heavy work.



Unusual sizes or other models, for example with stainless steel rollers or completely turneable through 180°, are available on request.

All PBM machines are provided with an extra connection in the electrical box in which the roller bench cable can be connected.

The height can easily be adjusted electrically with one push on the button. The top part with the V-rolls then moves up or down in its entirety. The desired height can be seen on the scale.



	TRB-3000	TRB-5000	TRB-7000	TRB-3016	TRB-5016	TRB-7016	TRB-4030	TRB-5030	TRB-7030
PBM-4	●	●	●	-	-	-	-	-	-
PBM-6-SCR	●	●	●	-	-	-	-	-	-
PBM-6	●	●	●	-	-	-	-	-	-
PBM-8	●	●	●	-	-	-	-	-	-
PBM-16	-	-	-	●	●	●	-	-	-
PBM-30	-	-	-	-	-	-	●	●	●
bench length (mm)	3000	5000	7000	3000	5000	7000	4000	5000	7000
bench width (mm)	300	300	300	400	400	400	700	700	700
capacity (kg)	2000	2000	2000	3000	3000	3000	10000	10000	10000
weight (kg)	1100	1400	1600	1400	1700	2000	4000	5000	7000

● = roller benches for combination with the named PBM machine

Insert holder sets for PBM machines

Th. Wortelboer BV has developed unique carbide insert holders and carbide inserts for the PBM machines.

A set of four insert holders, called an insert holder set, makes it possible to machine all pipe sizes in the range of the PBM machine. This means that the time-consuming resetting of insert holders is now definitely a thing of the past.

An insert holder set consists of 2-4 insert holders each having one or more carbide inserts. These inserts are suitable for machining almost all materials, including stainless steel, duplex steel and hasteloy.

An aluminium setting cone is supplied with the set in order to position the insert holders set correctly and easily. Apart from this setting cone and an Allen key you do not need anything else in order to set the insert holders rapidly and precisely.

The insert holder sets are supplied standard as a 30° or a 37.5° model. Other angles or models are available on request.

INSERT HOLDER SETS FOR THE PBM-4

The insert holder set 30° and 37,5° for the PBM-4 machines consists of 2 inserts holders each with two carbide inserts.

INSERT HOLDER SETS FOR THE PBM-6-SCR AND PBM-6 AND PBM-8

The insert holder set 30° for the PBM-6 machines consists of three insert holders each with one insert and one insert holder with two inserts.

The insert holder set 37.5° for the PBM-6 machines consists of two insert holders each with one insert and two insert holders each with two inserts.

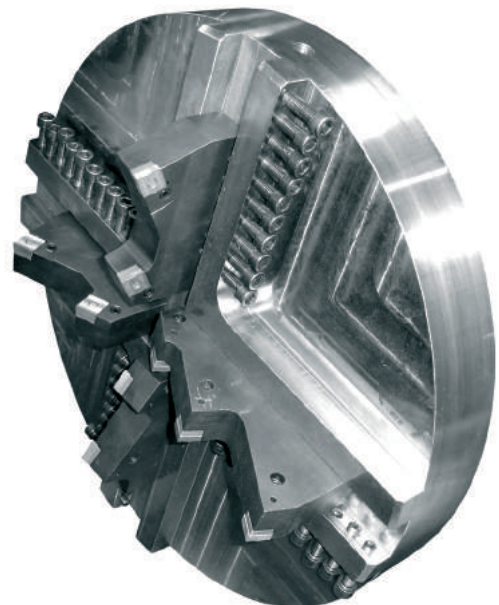
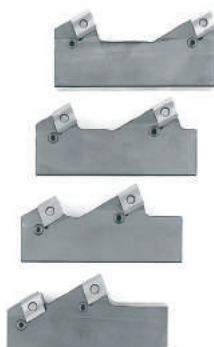
INSERT HOLDER SETS FOR THE PBM-8

The insert holder sets for the PBM-8 machines consist of four insert holders each with two inserts. The drawing (of the old PBM-12) gives an overview of the insert holders and the pipe sizes that can be machined with the particular set. Each separate insert is positioned in such a way that it can machine a particular size of pipe while the other inserts in effect rotate without doing any work.

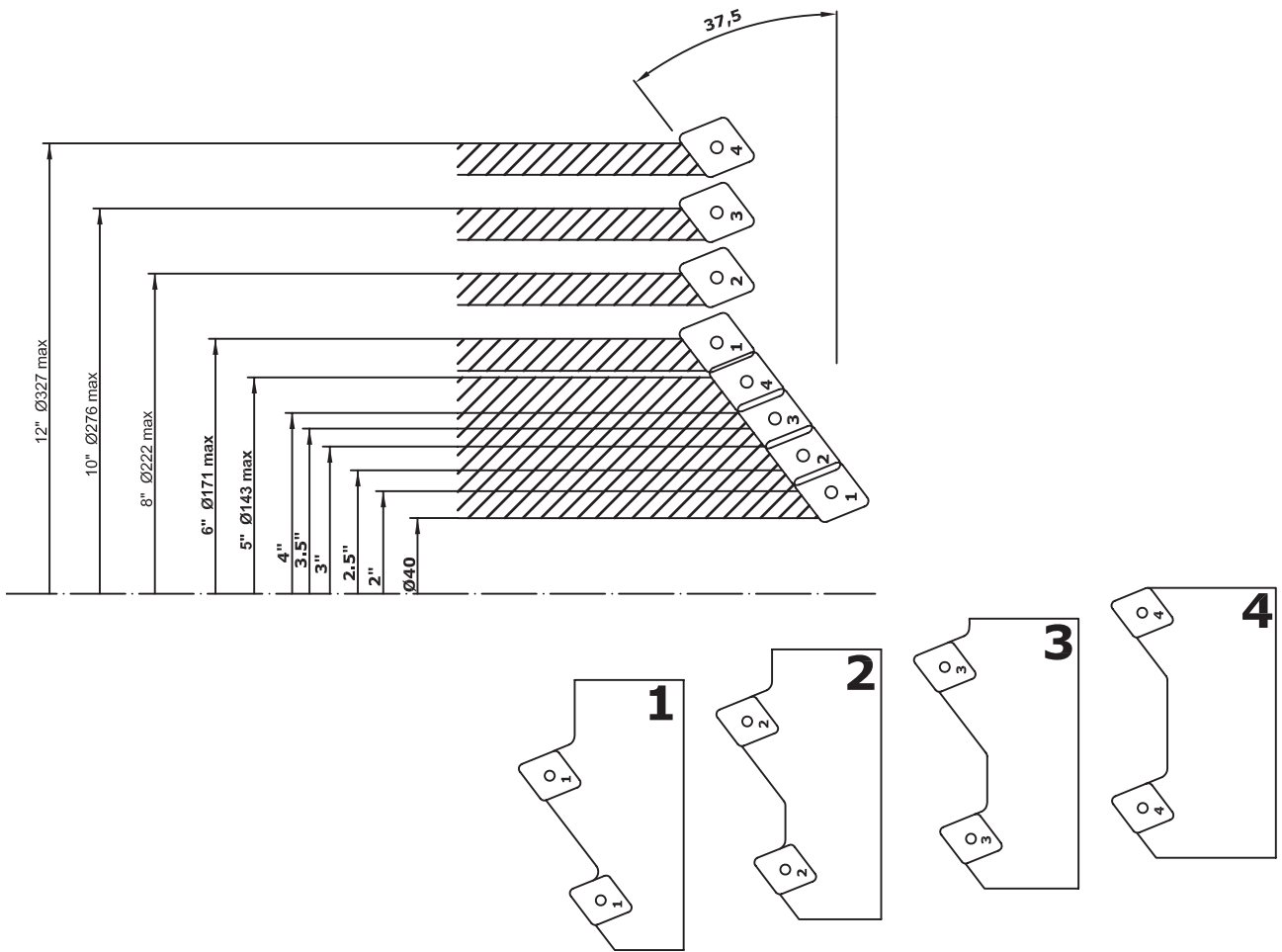
INSERT HOLDER SETS FOR THE PBM-16

The insert holder sets for the PBM-16 machines consist of three insert holders each with two inserts and one insert holder with three inserts.

The “standard / single” insert holders are available in a large number of different models, event. even with special made carbide inserts. Th. Wortelboer BV can advise you about the choice of cutting tools for your required end preparations.



Insert holder sets for PBM machines



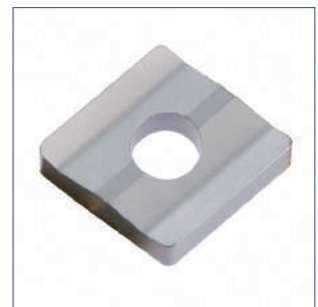
Below some possibilities of insert holders and (special) inserts.



Insert holder for facing



Insert holders for beveling "above" each other (wall max. 25 mm)



Standard insert with cutting length of 16 mm



Insert 50 mm for beveling 30° en 37,5°

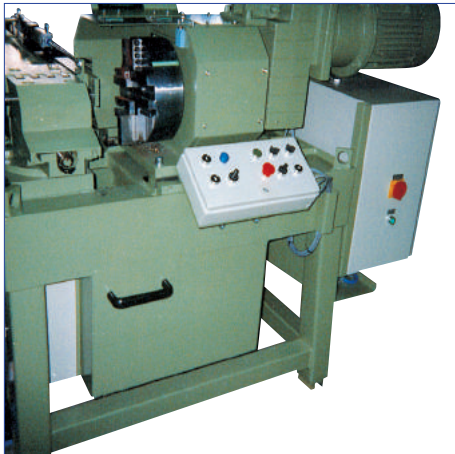


Insert for J-bevel



Custom made insert holder and special insert

PBM specials



As well as the standard series of PBM machines Th. Wortelboer BV also supplies special models designed according to specific customer wishes and requirements.

The photo on the left shows an older version of the PBM-6 machine that has been designed as a semi-automatic machine. The pipes are positioned in the machine manually up to the pipe-stop. One push on the button causes the pipe to be clamped, the stop to slide back and the rotating cutting head to move towards the material. Once the end preparation has been made the cutting head moves back to its starting position, the machine stops, the pipe-stop slides forward again and the machine is ready for the next pipe.

The KPBM-16 (see the illustration on the right) is based on the standard PBM-16 machine. This 'pipe shaving machine' is used to machine the outside of glass fibre reinforced pipes (also conical), in order to fit a sleeve over the pipe-end. The KPBM-16 machine has an automatic feed and an automatic clamping system. The length to be machined can be set beforehand on the machine.

These examples are just a few of the many possibilities. With more than 60 year's experience in pipe end preparation Th. Wortelboer BV is the expert partner for discussions about custom-made machines.





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BPBM - 16 Fitting and Pipe End Working machine

NEW

for Elbows, T-pieces and
Reducers.

BPBM- 16

This NEWLY, by ourselves, developed machine has as origin our well-known PBM (Pipe End Working) Machines and the clamp is made so Reducers, T-pieces and Elbows can be machined with these machines. The range is at this moment from 4" upto 16" but extending the range to smaller and larger sizes will be a matter of time.

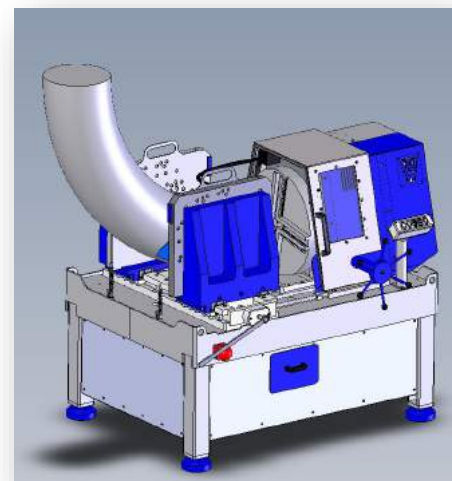
Also special clamping parts are under design at this moment and these will be made so normal pipes can be machined too.

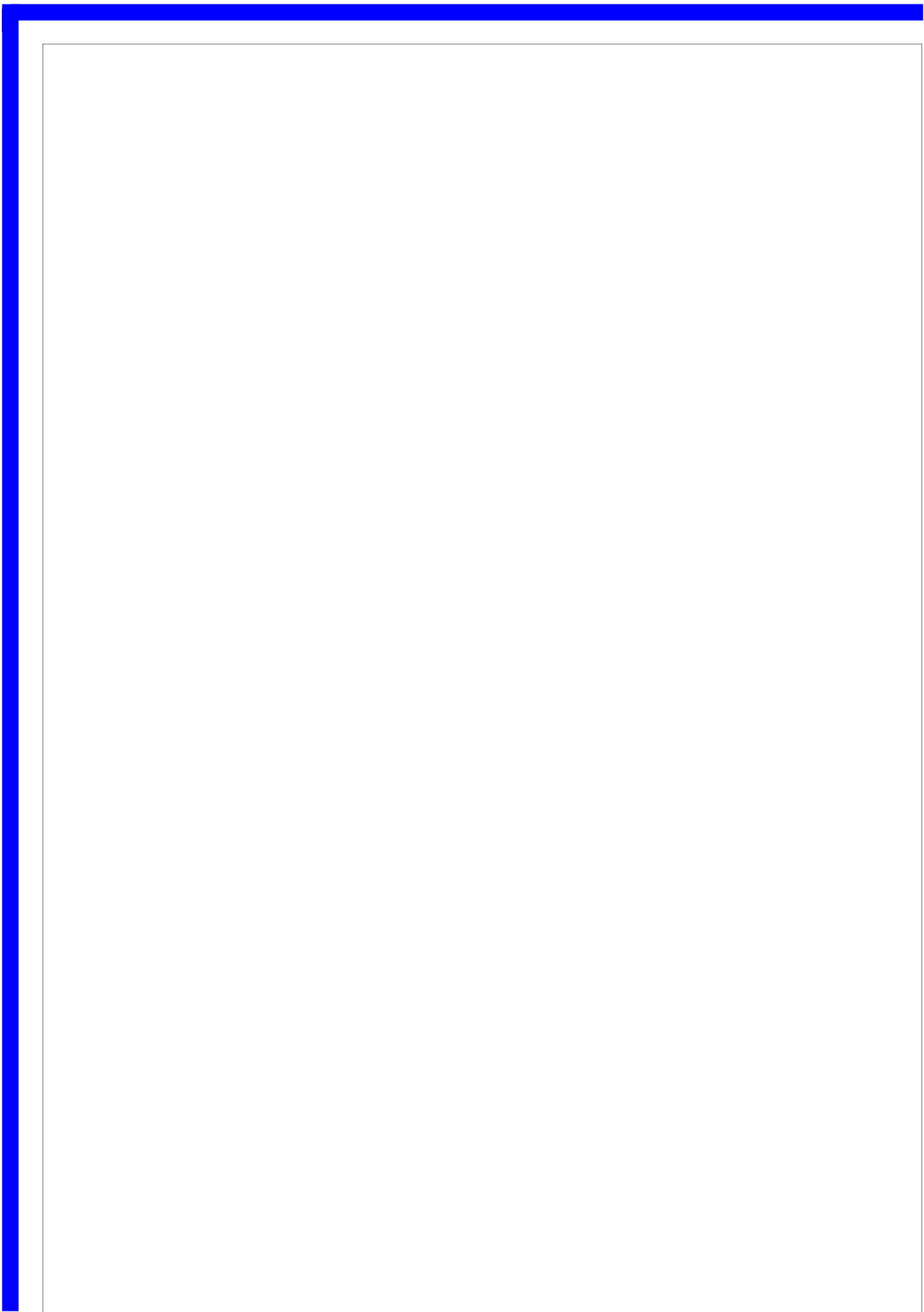
With the machine as it is, elbows with $R=1,5D$ and $R=3D$ can be machined in standard sizes.



Technical details :

Clamping range	: 114 - 430 mm. outside diam. (4"-16")
Turning range	: 90 - 430 mm.
Motor	: 400 V - 3ph - 50Hz
Power	: 5,5 kW - with inverter
Clamping	: fitting clamp - manual
Machining	: by use of carbide inserts
Max. wall thickness	: appr. 17 mm. in ONE pass
Feeding	: manual (standard)
Feeding stroke	: 100 mm.
Speed	: 35 - 100 r.p.m. stepless
Dimensions	: 190 x 135 x 180 cm.
Weight	: 3.500 Kgs.





TPP 5090 POLISHING MACHINE ®

for conditioning tube and pipe ends and plate edges



- fast polishing of welding preparations • safe in use
- compact build • easily adjustable

The TPP air driven polishing machine is the solution of Th. Wortelboer BV for conditioning welding preparations quickly and easy. Tubes, pipes as well as plate edges can be prepared for welding quickly and safely.

The two polishing wheels of the TPP 5090 can easily be adjusted according to the thickness of the material. The inevitable wear of the wheels, which decreases the wheel diameter, can simply be corrected.

The new innovative TPP 5090 conditioning machine is a registered design.



for

- boiler and heat exchanger manufacturing • offshore constructions
- tube and pipe fabrication • process constructions
- shipbuilding • petrochemical and nuclear • pipeline construction

technical specifications TPP series

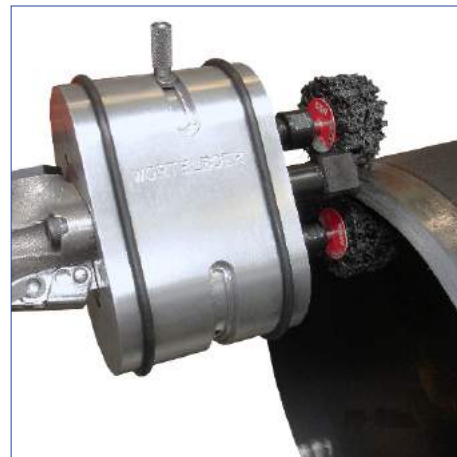


Model	TPP 5090 S	TPP 5090 D	TPP 5090 AUTO
Type	with straight handle	with D handle	with drive unit
Air consumption	0.46 m ³ /min - 16 CFM	0.46 m ³ /min - 16 CFM	0.58 m ³ /min - 20 CFM
Drive	manual feed	manual feed	motorized rotation
Polishing reach	25 - 30 mm		
Available grids	flap wheels (grid 40 and 80) and (black) strip wheels		
Speed (unloaded)	18.000 rpm		
Working pressure	6 Bar - 90 Psi		
Weight	3.5 Kg - 7.7 Lbs		

The TPP cleans the inside and outside of a tube or pipe (or plate edges) quickly and safely. Through this the removal of rust, paint and coatings inhibiting the weld is reduced to a minimum.

The distance between the wheels can easily be adjusted, without the help of tools. In this way the polishing pressure can be adjusted to the material thickness.

The polishing pressure can also be influenced by slightly tilting the machine in the grinding direction.



The replaceable flap wheels are available in diameters 30 and 50 mm. The (black) strip wheels are available 50 mm only. The polishing width is 30 mm for the flap wheels and 25 mm for the (black) strip wheels.

The gritsizes of the flap wheels are 40 and 80. The standard flap wheels are of aluminium oxide construction. Zirconium wheels can be supplied for special applications.



The TPP 5090 polishing machine is supplied in a heavy duty case with all the necessary tools and storage for flap wheels. The content can be adjusted if desired.

Inquire about the possibilities of the TPP polishing machine and ask for a demonstration without obligations.



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ORBITALUM TUBE SQUARING MACHINES RPG Range Ø 3 mm - 219,1 mm O.D.



Fast, easy, perpendicular and burr-free squaring from thin-walled tubes and micro fittings.



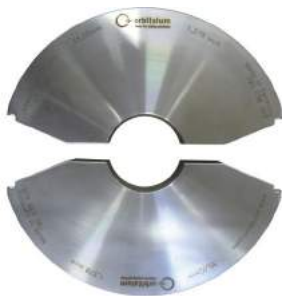
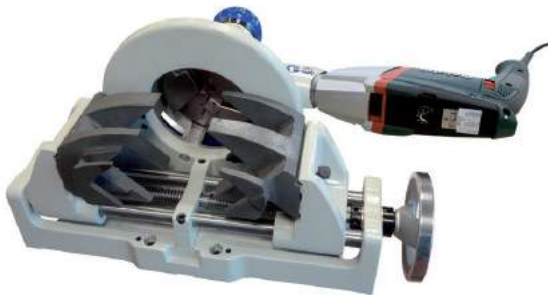
 **orbitalum**
orbital | cutting + welding

Technical specifications RPG

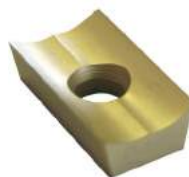


Type	Range Ø O.D.	Max. wall thickness	Dimensions	Machine weight	Power	RPM [min-1]
RPG ONE	3,0* - 25,4 mm	3 mm	390 x 70 x 200 mm	4,14 Kg.	1100 W.	145 - 380
RPG ONE CORDLESS	3,0* - 25,4 mm	3 mm	261 x 80 x 255 mm	2,88 Kg.	18 V.	0 - 500
RPG 1.5	3,0* - 38,1 mm	3 mm	400 x 160 x 350 mm	4,7 Kg.	1100 W.	145 - 380
RPG 1.5 CORDLESS	3,0* - 38,1 mm	3 mm	275 x 90 x 255 mm	3,4 Kg.	18 V.	0 - 500
RPG 2.5	3,0* - 63,5 mm	3 mm	500 x 170 x 300 mm	6,6 Kg.	1100 W.	1e Stand: 9 - 52 2e Stand: 27 - 153
RPG 2.5 CORDLESS	3,0* - 63,5 mm	3 mm	260 x 320 x 300 mm	5,34 Kg.	18 V.	1e Stand: 0 - 29 2e Stand: 0 - 100
RPG 4.5	12,7 - 114,3 mm	3 mm	460 x 260 x 230 mm	10,5 Kg.	1100 W.	8 - 52
RPG 4.5 S	12,7 - 114,3 mm	3 mm	610 x 380 x 270 mm	23 Kg.	1100 W.	8 - 52
RPG 8.6	50,8 - 219,1 mm	3,6 mm	500 x 350 x 350 mm	20,5 Kg.	1100 W.	7 - 18

(*) Standard range applications from 6 mm O.D. With special toolholder 3 mm O.D. is possible.



A separate clamping shell is required for each dimension



Insert / Multifunctional Tool MFW



Toolholder WH



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DUPLEX DEBURR MACHINE

The Duplex machine is suitable for internal and external deburring of pipes.
The machine is equipped with 2 spindles with a passage of \varnothing 20 mm. and MK 3.
The deburring heads are equipped with exchangeable HSS toolbits.
It is also possible to mount a standard boring bit in the machine.



TECHNICAL DATA

Power	: 0.75 kW
Width	: 450 mm.
Depth	: 410 mm.
Height	: 370 mm.
Spindle distance	: 250 mm.
Voltage	: 220/380 V 50 Hz
Spindle MK 3	: \varnothing 20 mm
Nett weight	: 80 kg.
Gross weight	: 110 kg.

Duplex desk model

For pipes with diameter \varnothing 5-85 mm.
Can be mounted on the work table with 4 screws.

Outside deburrer 90°

Exchangeable toolbit HSS.
Shaft MK 3.

\varnothing 8 - 45 mm.
 \varnothing 45 - 85 mm.

Inside deburrer 60°

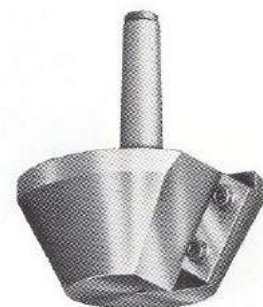
HSS crosshead.
Shaft MK 3.

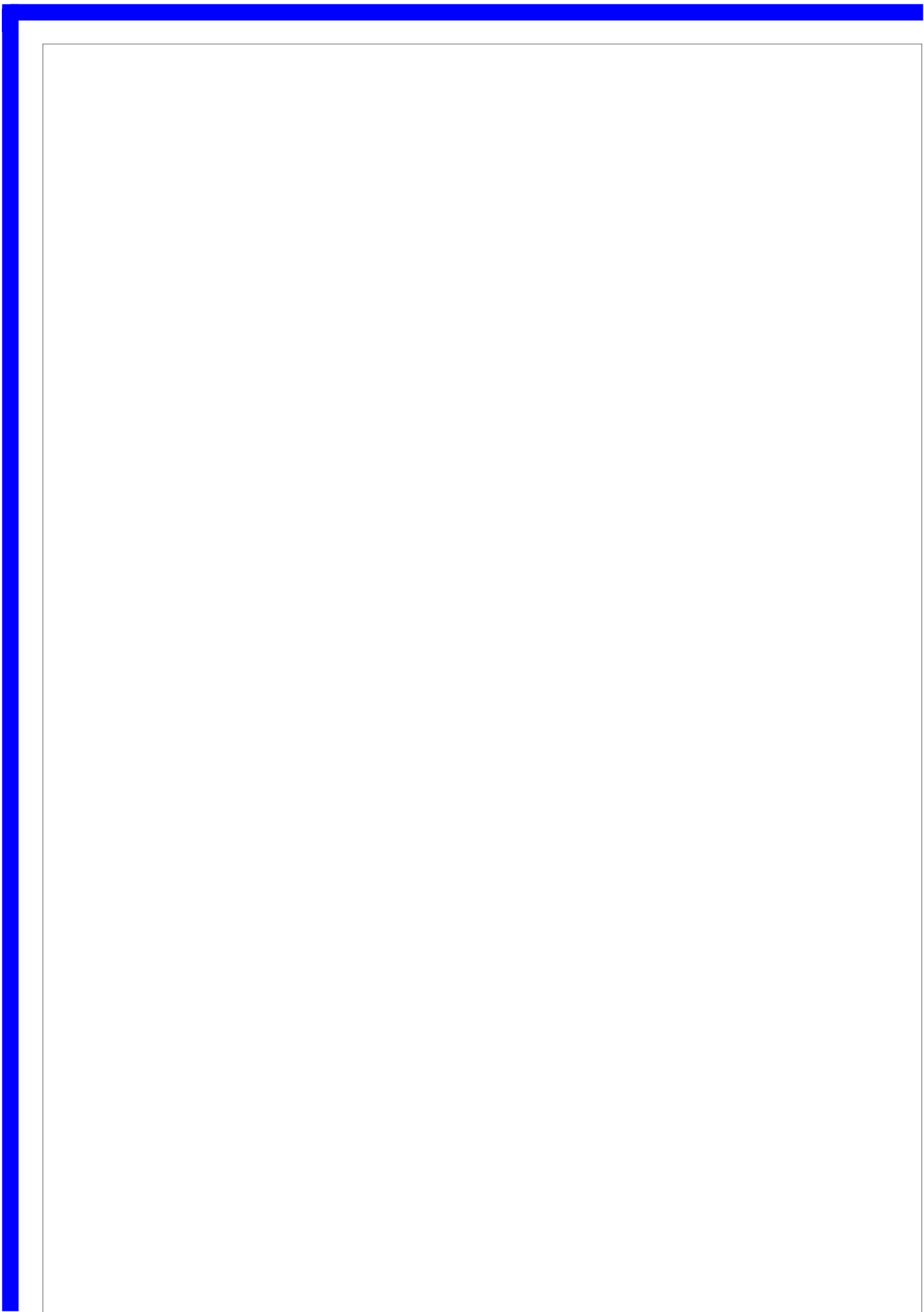
\varnothing 4 - 20 mm.
 \varnothing 6 - 45 mm.

Inside deburrer 60°

Exchangeable toolbit HSS.
Shaft MK 3.

\varnothing 20 - 45 mm.
 \varnothing 45 - 85 mm.





SNE-76 PIPE END PREPARATION MACHINE

clamping range 8 to 76 mm O.D.



- short machining time • compact build
- fast and safe clamping • easy to operate

Pipe and bar ends can be machined in seconds with the SNE-76 pipe end preparation machine.

In the head maximum three insert holders can be placed. This makes it possible to machine a pipe in and outside and to face the pipe at the same time.

By moving the handle to the left the clamp closes and the end stop goes back automatically. After that the head moves in the direction of the material. The feed travel can be limited by a stop.

The unique SNE-76 is a fast and safe machine for accurate machining of pipes and bar.



for

- heat exchanger manufacturing • offshore constructions
- apparatus manufacture • equipment constructions
- shipbuilding • machine construction • pipeline construction

SNE-76 technical specifications

SNE-76	general specifications
Pipe diameter	minimum 6 mm O.D.
	maximum 76,3 mm O.D.
Clamping	by means of replaceble clamp shells
Speed	250-650 / 450-1200 / 1600 - 3200 rpm
Power	0,75 kW
Voltage	380/400 Volt, 50/60 Hz
Dimensions (Length x Height x Width)	320 x 770 x 660 mm
Weight	130 Kg



Three insertholders can be placed in the head. Each with one single insert.

While the insert holders are in a fixed position, their set up is guaranteed. Even when the inserts must be replaced.

The clamp is provided with two replaceable clamping jaws with are conected to the machine clamp by means of hexagonal bold.

For every single diameter a suitable set of clamping jaws is needed. By clamping in this way even thin walled pipes can be machined.

Operating the SNE-76 is very easy. Once it adjusted the machine can be operated by semi-skilled personell.

The pipe stop and the stop for the feed are mechanically adjustable. Thanks to these stops larger series can be machine on the same lenght.





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Pipe end preparation machine type FBM



The FBM pipe end preparation machines are automatically working machines for machining pipe end and bars. The machines are deliverable in the range from 12 until 150 mm. The machines are standard executed for machining of pipes in an automatic working cycle.

This is how the work cycle goes:

- starting the machine by the push button.
- put the pipe in the clamp against the stop.
- push in the foot pedal or the button on the control panel.
- the clamp will close and the stop will slide away.
- machine goes in rapid action, then feed and the pipe will be machined.
- machine goes back to the start position and the clamp will open.

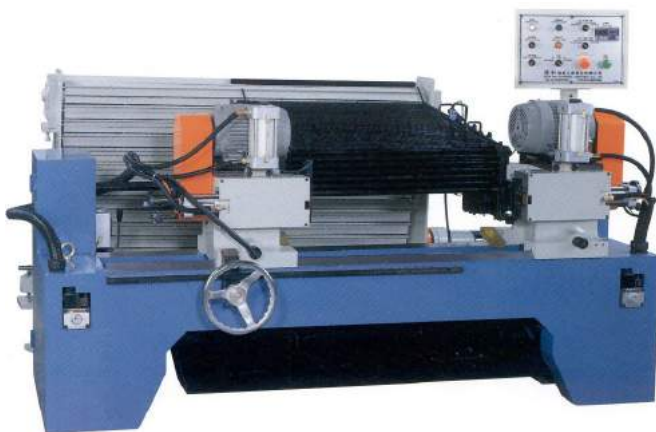
Thanks to this working cycle it is possible to bevel and face pipes and bars quickly. (internal as well as external) Beveling and facing can eventually be done in 1 processing.

Technical specifications		
	FBM 25-110	FBM 25-150
Range pipediameter	Ø 12 - 60 mm. / Ø 25 - 110 mm.	Ø 25 - 150 mm.
Max. wallthickness	4 mm.	4 mm.
Feed	pneumatic	pneumatic
Clamping	pneumatic	pneumatic
Stop	pneumatic	pneumatic
Motor	400V. - 3ph. - 1,5 pk.	400V. - 3ph. - 3 pk.
Air connection	6 bar	6 bar
Weight	360 kg.	400 kg.
Measures	76 x 70 x 114 cm.	76 x 70 x 116 cm.

Pipe end preparation machines FBM

The FBM machines are double-acting pipe end preparation machines which eventually can be equipped with a loading system.

Thanks to this loading system the FBM machine will be a fully-automatic working machine. Further specifications are on demand.



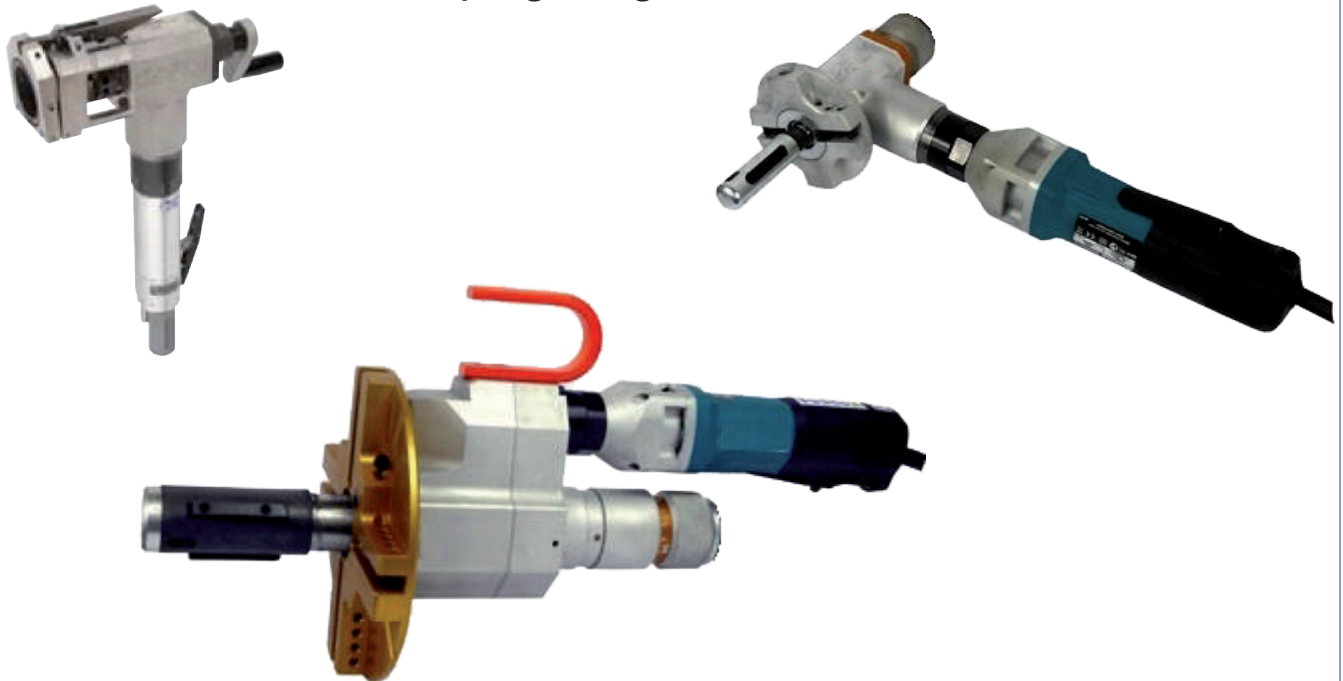
Pipe end preparation machine FDBM



Loading system for the FDBM machine

TU-D, TU-2, TU-3, TU-5 BEVEL MACHINES

clamping range 4 to 215 mm



- no noise or dust • compact shape
- fast and safe clamping • easy to handle

The TU-2, TU-3 and TU-5 are portable bevel machines which are clamped on the inside of a pipe or tube by a self centering axis with 3 clamping jaws.

Next the cutting tool (the toolbit) can be adjusted quick and easy on the diameter of the pipe that needs to be beveled. With the manual feed the toolbit moves towards the pipe to make the bevel.

The TU-D (see details on the back) clamps outside by means of clamp collets. These collets are available in every pipe size from 4 to 61 mm.

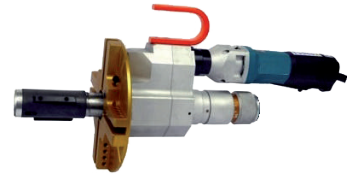
The TU bevel machines can be provided with an electrical (230 Volt) or pneumatic drive.



for

- heat exchanger manufacturing • offshore constructions
- apparatus manufacture • equipment constructions
- shipbuilding • machine construction • pipeline construction

Technical specifications TU series



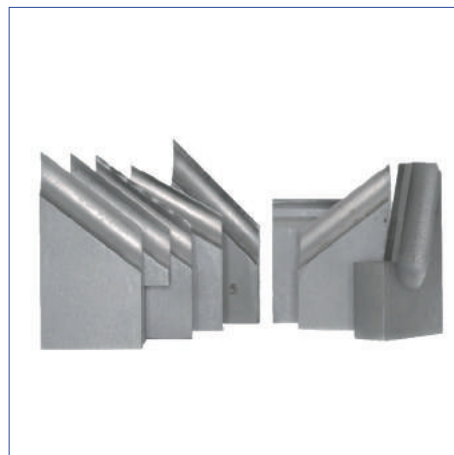
type	TU-2	TU-3	TU-5
Clamping range	minimum 18 mm I.D. ⁽²⁾	minimum 27 mm I.D. ⁽²⁾	minimum 52 mm I.D.
	maximum 51,5 mm I.D. ⁽²⁾	maximum 106 mm I.D. ⁽²⁾	maximum 215 mm I.D.
Lenght feed	maximum 40 mm (manual)	maximum 60 mm (manual)	maximum 60 mm (manual)
with electro motor	TU-2E	TU-3E	TU-5E
Power	1400 W ⁽¹⁾	1400 W ⁽¹⁾	1400 W ⁽¹⁾
Voltage	230Volt - 50Hz - 1ph	230Volt - 50Hz - 1ph	230Volt - 50Hz - 1ph
Weight	4 Kg	6 Kg	15 Kg
with pneumatic motor	TU-2P	TU-3P	TU-5P
Power	750 W (working pressure 6 Bar)	750 W (working pressure 6 Bar)	750 W (working pressure 6 Bar)
Working pressure	6 - 7 Bar	6 - 7 Bar	6 - 7 Bar
Air consumption	0,9 m³/min	0,9 m³/min	0,9 m³/min
Weight	4 Kg	6 Kg	15 Kg



type	TU-D
Clamping range	minimum 4 mm O.D.
	maximum 61 mm O.D.
Lenght feed	maximum 20 mm (manual)
with electro motor	TU-DE
Power	1400 W ⁽¹⁾
Voltage	230Volt - 50Hz - 1ph
Weight	8 Kg
with pneumatic motor	TU-DP
Power	750 W (working pressure 6 Bar)
Working pressure	6 - 7 Bar
Air consumption	0,9 m³/min
Weight	8 Kg

⁽¹⁾ Makita motor with variespeed

⁽²⁾ Optional the TU-2 and TU-3 are available with a reduced axis for 12 to 27 mm (TU-2) or 16 to 29 mm (TU-3)

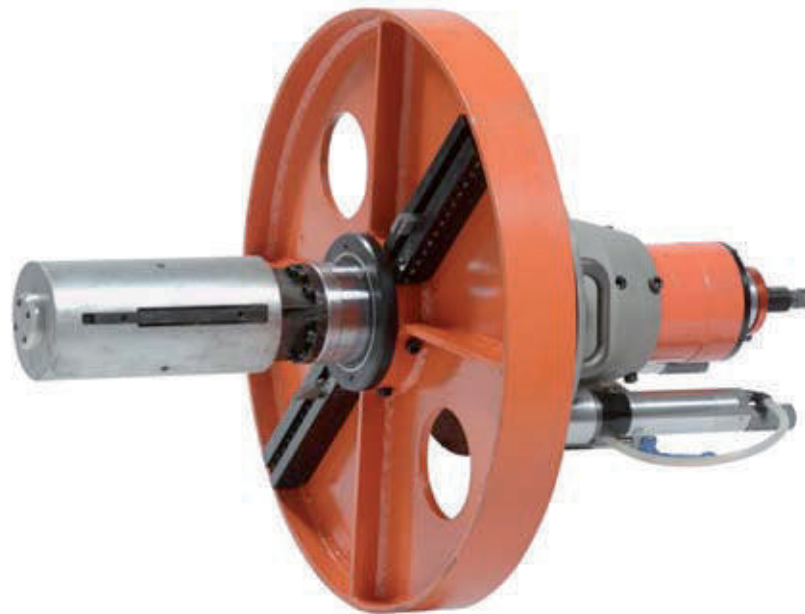


The machines (TU-2, TU-3 and TU-5) come in a hardplastic case with all the necessary clamping parts for the whole clamping range. For the TU-D one needs to order separate clamp collets in the right size.

Ask for the wide variety of toolbits and tool holders available.

TU-6, TU-12, TU-14 BEVEL MACHINES

clamping range 100 to 900 mm I.D.



- no noise or dust • compact shape
- fast and safe clamping • easy to handle

The TU-6, -12 and -14 portable pipe end preparation machines have a hydraulic, electrical or pneumatic drive.

With a self centering axis with 3 clamping jaws, the machine is clamped into the pipe. Next the cutting tool (the toolbit) can be adjusted quick and easy on the diameter of the pipe that needs to be beveled. With the manual feed the toolbit moves towards the pipe to make the bevel.

The hydraulic versions are driven by an external unit, the "Beluga Hydro Pack" (see details on the back).



for

- heat exchanger manufacturing • offshore constructions
- apparatus manufacture • equipment constructions
- shipbuilding • machine construction • pipeline construction

Technical specifications TU series



type	TU-6	TU-12	TU-14
Clamping range	minimum 100 mm I.D.	minimum 120 mm I.D.	minimum 500 mm I.D.
	maximum 400 mm I.D.	maximum 605 mm I.D.	maximum 900 mm I.D.
Lenght feed	maximum 100 mm (manual)	maximum 100 mm (manual)	maximum 100 mm (manual)
with hydraulic motor	TU-6H + Beluga Hydro Pack	TU-12H + Beluga Hydro Pack	TU-14H + Beluga Hydro Pack
Power	1.5 KW	3 KW	3 KW
Voltage	400Volt - 50Hz - 3ph	400Volt - 50Hz - 3ph	400Volt - 50Hz - 3ph
Weight	44 Kg + 70 Kg	105 Kg + 70 Kg	400 Kg + 70 Kg
with pneumatic motor	TU-6P with 1 or 2 motors	TU-12P with 1 or 2 motors	TU-14P with 2 motors
Power	1700 / 3400 W (w.p. 6 Bar)	1700 / 3400 W (w.p. 6 Bar)	6000 W (w.p. 6 Bar)
Working pressure	6 - 7 Bar	6 - 7 Bar	6 - 7 Bar
Air consumption	2 m³/min	1 m³/min	2,5 m³/min
Weight	40 Kg	105 Kg	400 Kg
with electro motor	TU-6E	TU-12E	-
Power	1400 W	1800 W	-
Voltage	230Volt - 50Hz - 1ph	230Volt - 50Hz - 1ph	-
Weight	44 Kg	105 Kg	-



type	Beluga Hydro Pack 3KW
Hydraulic motor	S46 HV ISO VG46
Dimensions (LxWxH)	1000 x 420 x 450 mm
Weight	70 Kg
Reservoir	2,5 L
Electrical motor	3 KW
Power	400Volt - 50Hz - 3ph
Hydraulic circuit	low pressure out flow 28 L/min
Max. working pressure	90 Bar



The machines (TU-6, TU-12, TU-14) are supplied with the necessary clamping parts for the whole clamping range. Special tool holders are available beside the standard toolbits. See picture above.



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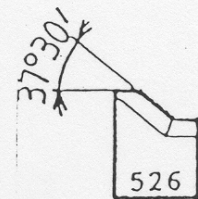
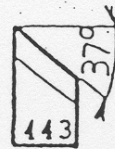
Cutting tools for TU-D machines

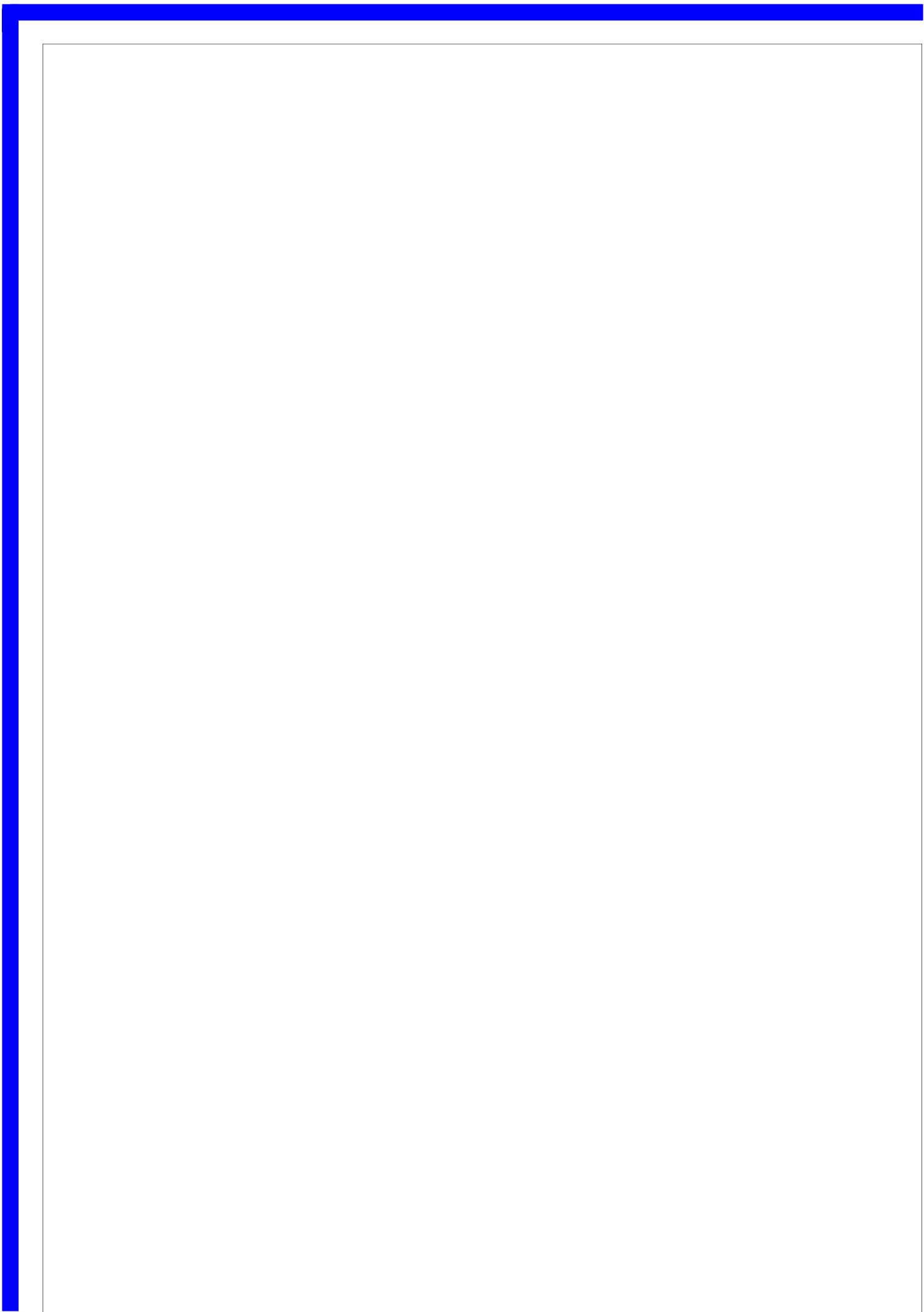
FACING

INTERNAL

EXTERNAL

SPECIALS







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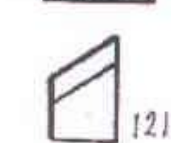
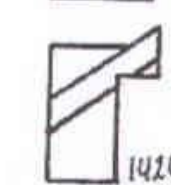
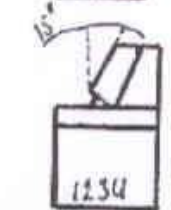
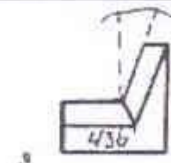
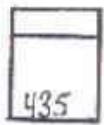
TOOLBITS FOR TU-MACHINES

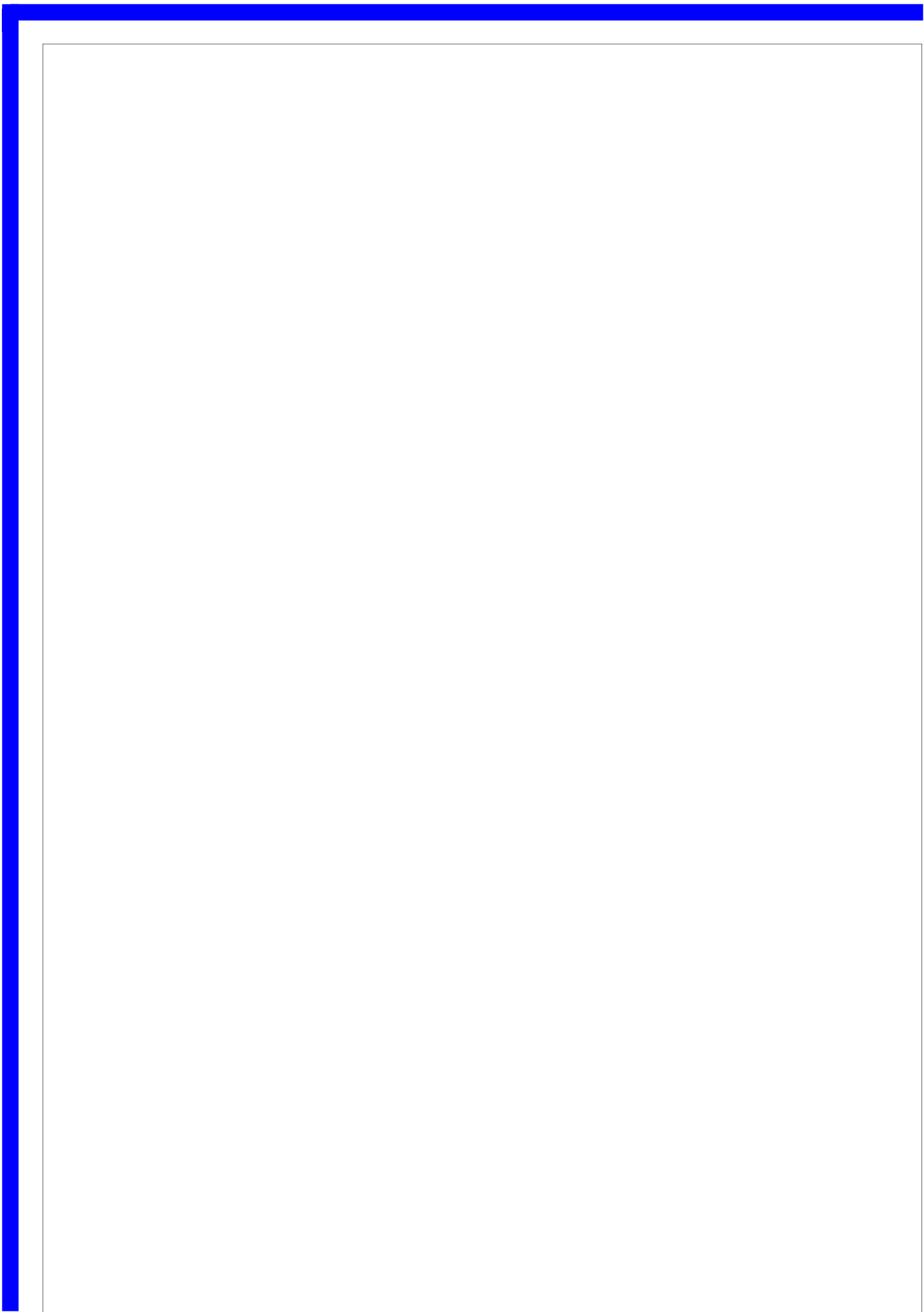
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PIPE CUTTING AND BEVELING type ABM-6



The unique ABM-6 Machine has very short cycle-times compared to a conventional bandsaw or circular saw. The ABM-6 is till 20 times faster.

Not only the working time is shorter. Also the handling of the pipe-material is extremely reduced because two machinings (cutting AND BOTH sides beveling) is done in the same cycle. This makes it possible to win a lot of time.

The adjustable feed of the cutting and beveling tools as well as the adjustable speed of the tool-head, makes it possible to machine all kinds of material like steel, stainless steel, DUPLEX, SUPERDUPLEX, Hasteloy, etc.

During the automatic cycle, BOTH pipe-ends beside the cutting line, are beveled at the same time. Only cutting, so without beveling, is naturally also possible.

The material is well clamped in 2 prism-clamps, left and right of the cutting line.

The clamping range of the machine is 1 1/2" till 6" pipe (so 46 till 175 mm. outside diameter).

The maximal wall thickness that can be cut and beveled is 25 mm. (30 mm inside diameter is the minimum).



Clamping range	46 mm to 175 mm
Turning range	30 mm to 175 mm
Head motor	400 Volt - 3-phase - 50 Hz
Power	7,7 kW
Motor prism clamp	0,75 kW (2x)
Machining	with HM inserts
Maximum wall thickness	25 mm
Feed motor	3,8 kW
Turning speed	40 - 80 rpm (stepless)
Dimensions	1050 x 1500 x 1850 mm
Weight	2000 kg

for

- Heat exchanger production
- Offshore construction
- Apparatus manufacture
- Shipbuilding
- Machine construction
- Pipeline construction

Exact PipeCut pipe cutting machines

Square cutting pipe Ø 15 mm (1/2") till Ø 360 mm (14")



- for steel, stainless and plastic • innovative design
- safe square cutting • very fast and easy

The Exact PipeCut pipe cutting machine cuts pipe and tube practically square and burr free. Nearly all materials are cut safely and comfortably on the right length. Immediately ready for the next step in the production process.

The chips cool very fast and drop-down close to the machine. The risk of damage or fire is minimal. Ergonomics and safety for the operator are ideal.

The Exact PipeCut 170E weighs only 5,7 Kg. The cutting range of the machines is enormous and the innovative clamping system provides a lot of stability.



For

- heat exchanger manufacturing • offshore constructions
- apparatus manufacture • equipment constructions
- shipbuilding • machine construction • pipeline construction

Technical specifications Exact PipeCut



Model	Exact PipeCut 170 E	Exact PipeCut 220 E
Range O.D.	Ø 15 mm - 170 mm	Ø 15 mm - 220 mm
Wall Thickness	Steel 8 mm Plastic 14 mm	Steel 8 mm Plastic 14 mm
Power	1200 W	1100 W
Voltage	230 V / 50 Hz	230 V / 50 Hz
No Load speed	1600 - 3500 RPM	1600 - 3500 RPM
Short-time duty	S3 25% (IEC 60034-1)	S3 25% (IEC 60034-1)
Weight	5,7 Kg	6,0 Kg



Model	Exact PipeCut 280 PRO	Exact PipeCut 360 PRO
Range O.D.	Ø 40 mm - 280 mm	Ø 75 mm - 360 mm
Wall Thickness	Steel 20 mm Plastic 50 mm	Steel 20 mm Plastic 50 mm
Power	2500 W	2500 W
Voltage	230 V / 50- 60 Hz	230 V / 50- 60 Hz
No Load speed	1900 - 2885 RPM	1900 - 2885 RPM
Laser	Yes	Yes
Weight	15,5 Kg	17,5 Kg



Cutting blade	TCT cutting blade	CERMET cutting blade	DIAMOND cutting blade
Dimensions model 170E + 220E	Ø 140 mm	Ø 140 mm	Ø 140 mm
Dimensions model 280E / Pro + 360E / Pro	Ø 165 mm	Ø 165 mm	Ø 165 mm
Application	General use steel, aluminium, plastic	Heavy use: stainless steel and corrosion resistant material	Heavy use: cast iron.



Other blades on request.

All Exact Pipecut machines come in a handy bag which carries a TCT cutting blade, a set of 4 pipe supports, two keys and an English manual.



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Exact PipeCut P400

Cut and bevel plastic pipes
Ø 100 mm - 400 mm (3,9" - 15,7")



- Suitable for all kinds of plastics,
- Cut and bevel at the same time or separate,
- Safe and quick.

The Exact PipeCut P400 cut and bevel machine is suitable for all kinds of plastic pipes.

Unique method for plastic pipe installations. You just need to cut around a pipe and you get nice 15 degrees bevel at the same time. You can use the PipeCut P400 saw also only for cutting or only for just to bevel plastic pipes.

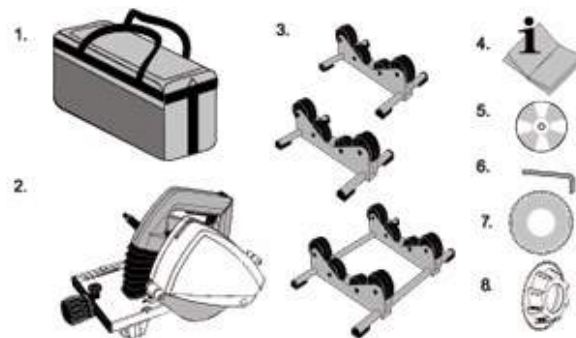


Power	1010 W
Voltage	230V, 8.4A
No-Load speed	4000 RPM
Blade diameter	148 / 150 mm (5.8"/5.9")
Weight	6,0 kg
Range of use	100 mm – 400 mm (3.9"- 15.7")
Max. pipe wall	25 mm (0.98") cut 22 mm (0.86") bevel



The machine comes with:

1. PipeCut Bag 1x
2. Exact PipeCut P400 machine
3. Pipe Support 2x P400 single + P400 double
4. Operating instructions
5. DVD video disc including instructions
6. Hex socket key 5 mm fitted to the machine
7. TCT P150 blade fitted to the machine
8. Cut Bevel blade



Blades:

TCP P150: cutting blade with tungsten carbide tips for all kinds of plastics.



Cut Bevel: this blade is made to cut and bevel at the same time.



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ORBITALUM PIPE CUTTING & BEVELING MACHINES Range Ø 6 mm - 325 mm O.D.



Fast, perpendicular and burr-free cutting and beveling from pipes.



 **orbitalum**
orbital | cutting + welding



Technical specifications

Type	Range Ø O.D.	Max. wall thickness	Dimensions	Weight	Power	RPM [min-1]
GFX 3.0	6,0 - 78 mm	0,8 - 7 mm	570 x 280 x 330 mm	28,5 Kg.	1200 W	30 - 200
GFX 6.6	21,3 - 168,3 mm	0,8 - 7 mm	575 x 671 x 350 mm	74,4 Kg.	1200 W	30 - 200
PS 4.5 Plus	6,0 - 120 mm	0,6 - 3 mm	480 x 230 x 600 mm	23 Kg.	1010 W	30 - 165
GF 4	12 - 120 mm	1 - 9 mm	480 x 325 x 680 mm	55 Kg.	1.8 KW	40 - 215
GF 4 AVM *	12 - 120 mm	1 - 9 mm	480 x 325 x 810 mm	64,5 Kg.	1.9 KW	40 - 215
GF 4 MVM **	12 - 120 mm	1 - 9 mm	480 x 325 x 780 mm	60 Kg.	1.8 KW	40 - 215
GF 6	21,3 - 168,3 mm	1,5 - 15 mm	574 x 352,7 x 920 mm	92,7 Kg.	1.8 KW	40 - 215
GF 6 AVM *	21,3 - 168,3 mm	1,5 - 15 mm	574 x 352,7 x 972 mm	101,7 Kg.	1.9 KW & 0,5 KW	40 - 215
GF 6 MVM **	21,3 - 168,3 mm	1,5 - 15 mm	574 x 352,7 x 920 mm	97,8 Kg.	1.8 KW	40 - 215
RA 8	114 - 230 mm	2 - 10 mm	778 x 485 x 430 mm	102,5 Kg.	1.8 KW	40 - 215
RA 8 AVM *	114 - 230 mm	2 - 10 mm	918 x 485 x 430 mm	110 Kg.	1.9 KW & 0,5 KW	40 - 215
RA 8 MVM **	114 - 230 mm	2 - 10 mm	788 x 485 x 430 mm	104,6 Kg.	1.8 KW	40 - 215
RA 12	157 - 325 mm	2 - 10 mm	940 x 374 x 592 mm	138,6 Kg.	1.8 KW	40 - 215
RA 12 AVM *	157 - 325 mm	2 - 10 mm	1070 x 374 x 592 mm	146,1 Kg.	1.9 KW & 0,5 KW	40 - 215
RA 12 MVM **	157 - 325 mm	2 - 10 mm	1090 x 374 x 592 mm	140,7 Kg.	1.8 KW	40 - 215

(*) AVM = automatic cutting process.

(**) MVM = manual cutting process with hand wheel.



GFX 3.0



GFX 6.6



PS 4.5 PLUS



GF 6 / GF 6 AVM / GF 6 MVM



RA 8 / RA 8 AVM / RA 8 MVM

GF 4, GF 6 (AVM/MVM)

Pipe cutting and beveling machines

This saw has been designed for precise cutting of tubes and pipes in just seconds.

For more than 40 years construction companies rely on the standard set by Orbitalum in the industrial prefabrication of pipeline systems: From the chemical, biotechnology, pharmaceutical, food and beverage industry to the energy plant construction and shipbuilding.



The basic requirement for the productive and high-quality welding of pipes with automated welding technology is a precise, right-angled and burr-free cut as well as a perfectly beveled pipe end.

The GF series cuts and bevels high-alloy steel (stainless steel), low- and unalloyed steel, plastics, casting materials and non-ferrous metals easily and in just seconds, using the "Planetary Cutting" method.

The powerful clamping is effected without any deformation of the workpiece.

Besides the completely manual operation, users also have the possibility to choose between manual operation with manual feed module (MVM) or automatic feed module (AVM) - both optional. The latter option optimizes the cutting result, increases the tool life and reduces the operator impact. The result: Maximum safety and productivity.

- Square, burr-free and cold machining process
- Deformation-free clamping system for tubes and pipes
- Optimum preparation for the automated welding process
- Sturdy design with powerful drive
- Unique and automated orbital cutting process
- Simultaneous or separate cutting and beveling
- Cost-effective, increasing productivity
- Long tool life
- Anthracite-colored coated components for improved sliding properties and protection against corrosion
- Stainless steel clamping attachments for protection against contact corrosion included
- Reduced operator impact by optional feed module AVM or MVM for an automated or manual cutting process
- Locking mechanism prevents unauthorized usage and theft
- An ergonomically-designed motor handle for a safe and comfortable operating position, which also enables easy cutting of elbows
- Integrated line laser to determine the cut off point
- 2 position clamping jaws to reduce chatter and enable smaller length of pipe to be machined
- Multifunctional tool for all adjustments on the machine
- Optimized speed range (40-215 rpm), ideal for cutting high-performance materials (Hastelloy®, P91, etc.)
- Swivel cable with a quick-disconnect coupler: for easy and comfortable replacement of the power cable
- Optimized saw blade guard protects the user against flying chips and comes with a measuring port (for GF 4 only)

APPLICATION RANGE		GF 4	GF 4 AVM*	GF 4 MVM*	GF 6	GF 6 AVM*	GF 6 MVM*
Code	[230 V] [120 V]	790 142 001 790 142 002	790 142 011 790 142 012	790 142 021 790 142 022	790 143 001 790 143 002	790 143 011 790 143 012	790 143 021 790 143 022
Tube OD	[mm] [inch]	12 - 120 0.472 - 4.724	12 - 120 0.472 - 4.724	12 - 120 0.472 - 4.724	21.3 - 168.3 0.839 - 6.626	21.3 - 168.3 0.839 - 6.626	21.3 - 168.3 0.839 - 6.626
Wall thickness (depends on material)**	[mm] [inch]	1 - 9 0.039 - 0.354	1 - 9 0.039 - 0.354	1 - 9 0.039 - 0.354	1.5 - 15 0.059 - 0.591	1.5 - 15 0.059 - 0.591	1.5 - 15 0.059 - 0.591
Tube ID min. (saw blade Ø 63 mm)	[mm]	21	21	21	30	30	30
Tube ID min. (saw blade Ø 2.480")	[inch]	0.827	0.827	0.827	1.181	1.181	1.181
Tube ID min. (saw blade Ø 68 mm)	[mm]	16	16	16	25	25	25
Tube ID min. (saw blade Ø 2.677")	[inch]	0.630	0.630	0.630	0.984	0.984	0.984
Tube ID min. (saw blade Ø 80 mm)	[mm]	4	4	4	13	13	13
Tube ID min. (saw blade Ø 3.150")	[inch]	0.157	0.157	0.157	0.512	0.512	0.512
Tube ID min. (saw blade Ø 100 mm)	[mm]	-	-	-	0	0	0
Tube ID min. (saw blade Ø 3.937")	[inch]	-	-	-	0	0	0
Tube materials		High-quality steel (any Cr and Mo content); high-quality stainless steel (any Cr and Mo content); high-quality steel (Cr < 12% and Mo < 2.5%; Cr < 20% and Mo = 0%); case hardened steels, high-speed steels, tempering steels, bearing steels, tool steels; black and galvanized steel pipe; general structural steel; annealed cast iron pipe (GGG); aluminum; brass; copper; plastics (PE, PP, PVDE, PVC)					
TECHNICAL DATA		GF 4	GF 4 AVM*	GF 4 MVM*	GF 6	GF 6 AVM*	GF 6 MVM*
Power	[kW] [hp]	1.8 2.41	1.9 2.54	1.8 2.41	1.8 2.41	1.9 2.54	1.8 2.41
Power AVM	[kW] [hp]	-	0.05 0.07	-	-	0.05 0.07	-
Built-in electronic variable cutting speed with restart inhibitor	[rpm]	40 - 215	40 - 215	40 - 215	40 - 215	40 - 215	40 - 215
Slide housing speed with AVM	[rpm]	-	0.1 - 3.9	-	-	0.3 - 3.5	-
Slide housing torque max. with AVM	[Nm]	-	101	-	-	353	-
Protection class	[class]	II (DIN EN 60745-1)	I (DIN EN 60204-1)	II (DIN EN 60745-1)	II (DIN EN 60745-1)	I (DIN EN 60204-1)	II (DIN EN 60745-1)
Noise level at the workplace approx.	[dB (A)]	79	79	79	79	79	79
Vibration level (according to DIN EN 28662, part 1)	[m/s ²]	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5
Mains fuse by customer	[A]	16	16	16	16	16	16
Dimensions (lxwxh)	[mm] [inch]	480 x 325 x 680 18.9 x 12.8 x 26.8	480 x 325 x 810 18.9 x 12.8 x 31.9	480 x 325 x 780 18.9 x 12.8 x 30.7	574 x 352.7 x 920 22.6 x 13.9 x 36.2	574 x 352.7 x 972 22.6 x 13.9 x 38.3	574 x 352.7 x 920 22.6 x 13.9 x 36.2
Weight of machine approx.***	[kg] [lbs]	55.0 121.2	64.5 142.2	60.0 132.2	92.7 204.4	101.7 224.2	97.8 215.6
Versions (single-phase AC)	[V, Hz]	230 V, 50/60 Hz 120 V, 50/60 Hz	230 V, 50/60 Hz 120 V, 50/60 Hz	230 V, 50/60 Hz 120 V, 50/60 Hz	230 V, 50/60 Hz 120 V, 50/60 Hz	230 V, 50/60 Hz 120 V, 50/60 Hz	230 V, 50/60 Hz 120 V, 50/60 Hz
SCOPE OF DELIVERY		GF 4	GF 4 AVM*	GF 4 MVM*	GF 6	GF 6 AVM*	GF 6 MVM*
Pipe cutting and beveling machine	Pc.	1	1	1	1	1	1
Transportation case	Pc.	1	1	1	1	1	1
Set of stainless steel clamping attachments	Pc.	1	1	1	1	1	1
Saw blade (Code 790 ...)	Pc.	1 (...042 064)	1 (...042 064)	1 (...042 064)	1 (...043 018)	1 (...043 018)	1 (...043 018)
Mounting plate	Pc.	1	1	1	1	1	1
Line laser with fastening screw****	Pc.	1	1	1	1	1	1
Tool set	Set	1	1	1	1	1	1
Saw blade lubricant GF TOP (Code 790 060 228)	Tube	1	1	1	1	1	1
Special gear oil (Code 790 041 030)	Bottle	1	1	1	1	1	1
Operating instructions and spare parts list	Set	1	1	1	1	1	1

The technical data are not binding. They are not warranted characteristics and are subject to change. Please consult our general conditions of supply.

* The automatic/manual feed module AVM/MVM is already fitted to the pipe cutter upon delivery.

** With automatic cutting process. Increased wall thickness possible with manual feed or by adding an additional cut (depending on the saw blade diameter).

*** Weight without packaging and accessories.

**** The line laser is already mounted at the GF 4 (AVM/MVM) on delivery. At the GF 6 (AVM/MVM) the line laser is supplied separately and has to be mounted on the machine before commissioning

FEED VERSIONS:

Pipe cutting and beveling machine with **automatic feed module AVM***: This intelligent solution continuously controls the cutting speed depending on the torque and the parameter settings. The AVM improves the handling of the GF and RA machine and stops automatically after the cutting process.

Pipe cutting and beveling machines **with manual feed module MVM***: This manually operated feed module facilitates the cutting and beveling of pipes. With the help of a hand wheel, the machine head rotates easily and with little effort around the pipe with a constant speed.



Pipe cutting and beveling machines

GF 4, GF 6 (AVM/MVM)

Features, application range, technical data and scope of delivery, see from page 9.

ARTICLE	VERSION	CODE	WEIGHT OF MACHINE KG	DISPATCH WEIGHT KG
GF 4	230 V, 50/60 Hz EU	790 142 001	61.300	88.000
GF 4	120 V, 50/60 Hz EU/US	790 142 002	61.300	88.000
GF 4 AVM	230 V, 50/60 Hz EU	790 142 011	70.500	98.000
GF 4 AVM	120 V, 50/60 Hz EU/US	790 142 012	70.500	98.000
GF 4 MVM	230 V, 50/60 Hz EU	790 142 021	66.600	98.000
GF 4 MVM	120 V, 50/60 Hz EU/US	790 142 022	66.600	98.000
GF 6	230 V, 50/60 Hz EU	790 143 001	92.700	140.000
GF 6	120 V, 50/60 Hz EU/US	790 143 002	92.700	140.000
GF 6 AVM	230 V, 50/60 Hz EU	790 143 011	101.700	153.000
GF 6 AVM	120 V, 50/60 Hz EU/US	790 143 012	101.700	153.000
GF 6 MVM	230 V, 50/60 Hz EU	790 143 021	97.800	147.000
GF 6 MVM	120 V, 50/60 Hz EU/US	790 143 022	97.800	147.000



GF 4, GF 6



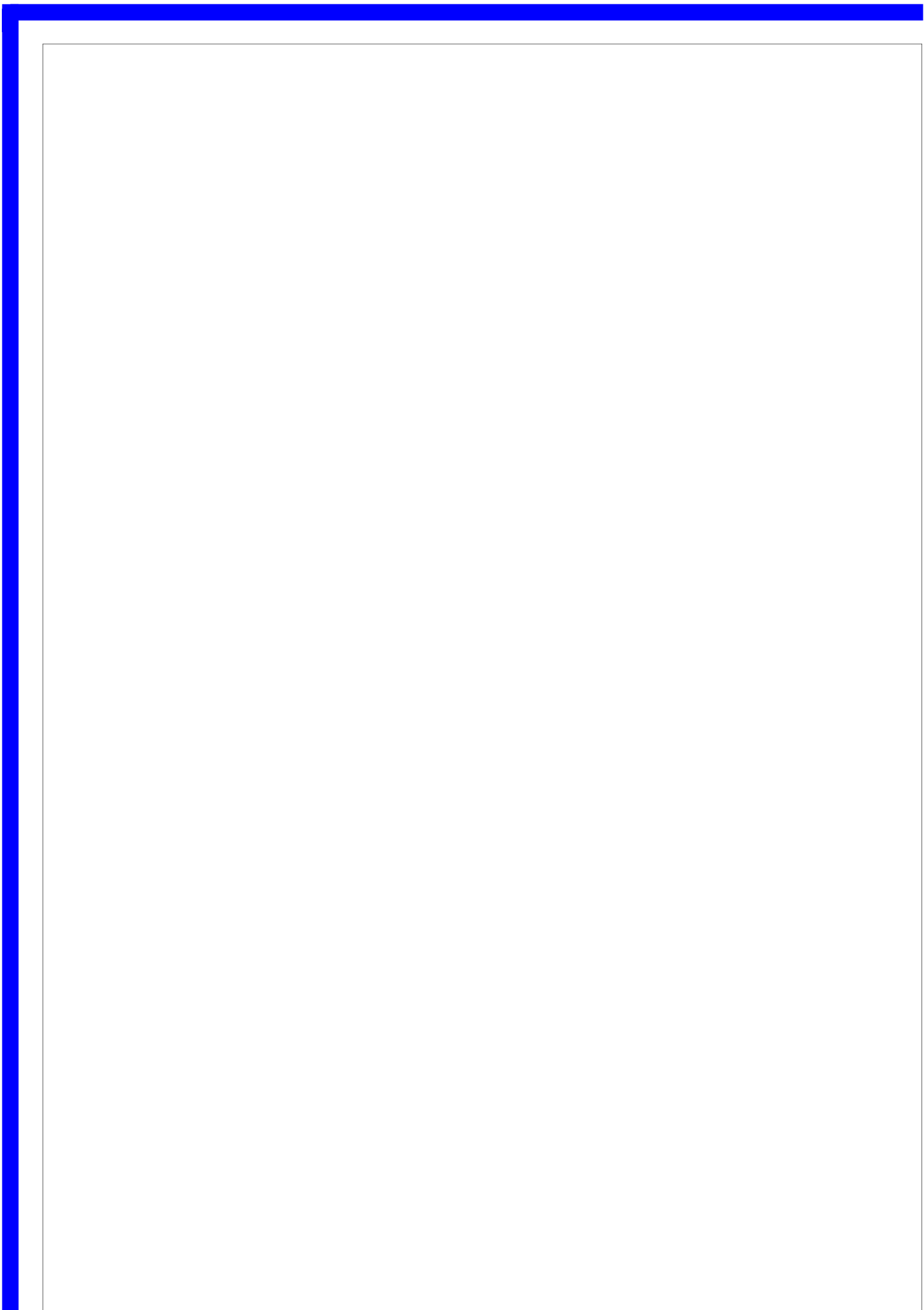
GF 4 AVM, GF 6 AVM



GF 4 MVM, GF 6 MVM

Suitable accessories

- Saw blades and bevel cutters, see from page 27
- High-performance lubricants for cutting and beveling, see page 22
- Special gear oil, see page 22
- Swivel cable, see page 23
- Quick-mounting base plates with integrated screw clamps, see page 23
- Mobile workstation, see page 23
- Pipe feeder base unit and extension unit, see from page 24
- Collapsible work bench, see page 82



RA 8, RA 12 (AVM/MVM)

Pipe cutting and beveling machines

Perform economical cutting and beveling with technology made by Orbitalum Tools!
Cutting and beveling high-alloy steel (stainless steel), low- and unalloyed steel, plastics, casting materials and non-ferrous metals in just seconds, using the "Planetary Cutting" method.



"Enhanced safety due to stationary tube - rotating tool". The tested process of planetary cutting is another important feature, which characterizes all ORBITALUM pipe cutting machines. The saw blade rises into the cutting area and is driven orbitally around the tube. The advantage is that a small saw blade can cut a large tube diameter, without heating the tube.

An innovative clamping principle which clamps the tube at several points: Thanks to the deformation-free clamping system, pipes with a wall-thickness of 2 up to 10 mm (0.079" - 0.394") can be prepared easily and quickly. It is possible to cut all high-alloyed, un- and low-alloyed steels, black and galvanized steel pipes, general structural steels, annealed cast iron pipes (GGG), aluminum, brass, copper and plastics.

Besides the completely manual operation, users

also have the possibility to choose between manual operation with manual feed module (MVM) or automatic feed module (AVM) = both optional. The latter option optimizes the cutting result, increases the tool life and reduces the operator impact. The result: Maximum safety and productivity.

- Square, burr-free and cold machining process
- Deformation-free clamping system for tubes and pipes
- Optimum preparation for the automated welding process
- Sturdy design with powerful drive
- Unique and automated orbital cutting process
- Multiple point clamping
- Reduced operator impact by optional feed module AVM or MVM for an automated or manual cutting process
- Fast adjustment of dimensions
- Regulated cutting speed

- Optimal tool contact
- Fast tool replacement
- Optimized speed range (40-215 rpm), ideal for cutting high-performance materials (Hastelloy®, P91, etc.)
- An ergonomically-designed motor handle for a safe and comfortable operating position
- Cutting in seconds
- Simultaneous or separate cutting and beveling
- Increased productivity
- Increased service life of tools
- More corrosion protection through clamping jaw attachments (included)

APPLICATION RANGE		RA 8	RA 8 AVM*	RA 8 MVM*	RA 12	RA 12 AVM*	RA 12 MVM*
Code	[230 V] [120 V]	790 045 095 790 045 096	790 045 001 790 045 007	790 045 069 790 045 082	790 047 095 790 047 096	790 047 001 790 047 007	790 047 069 790 047 082
Tube OD	[mm] [inch]	114 - 230 4.488 - 9.055	114 - 230 4.488 - 9.055	114 - 230 4.488 - 9.055	157 - 325 6.181 - 12.795	157 - 325 6.181 - 12.795	157 - 325 6.181 - 12.795
Wall thickness (depends on material)**	[mm] [inch]	2 - 10 0.079 - 0.394	2 - 10 0.079 - 0.394	2 - 10 0.079 - 0.394	2 - 10 0.079 - 0.394	2 - 10 0.079 - 0.394	2 - 10 0.079 - 0.394
Tube ID min. (saw blade Ø 63 mm)	[mm]	137	137	137	190	190	190
Tube ID min. (saw blade Ø 2.480")	[inch]	5.394	5.394	5.394	7.480	7.480	7.480
Tube ID min. (saw blade Ø 68 mm)	[mm]	132	132	132	185	185	185
Tube ID min. (saw blade Ø 2.677")	[inch]	5.197	5.197	5.197	7.283	7.283	7.283
Tube ID min. (saw blade Ø 80 mm)	[mm]	120	120	120	173	173	173
Tube ID min. (saw blade Ø 3.150")	[inch]	4.724	4.724	4.724	6.811	6.811	6.811
Tube ID min. (saw blade Ø 100 mm)	[mm]	100	100	100	153	153	153
Tube ID min. (saw blade Ø 3.937")	[inch]	3.937	3.937	3.937	6.024	6.024	6.024
Tube materials		High-quality steel (any Cr and Mo content); high-quality stainless steel (any Cr and Mo content); high-quality steel (Cr < 12% and Mo < 2.5%; Cr < 20% and Mo = 0%); case hardened steels, high-speed steels, tempering steels, bearing steels, tool steels; black and galvanized steel pipe; general structural steel; annealed cast iron pipe (GGG); aluminum; brass; copper; plastics (PE, PP, PVDE, PVC)					
TECHNICAL DATA		RA 8	RA 8 AVM*	RA 8 MVM*	RA 12	RA 12 AVM*	RA 12 MVM*
Power	[kW] [hp]	1.8 2.41	1.9 2.54	1.8 2.41	1.8 2.41	1.9 2.54	1.8 2.41
Power AVM	[kW] [hp]	-	0.05 0.07	-	-	0.05 0.07	-
Built-in electronic variable cutting speed with restart inhibitor	[rpm]	40 - 215	40 - 215	40 - 215	40 - 215	40 - 215	40 - 215
Slide housing speed with AVM	[rpm]	-	0.1 - 2.3	-	-	0.1 - 1.8	-
Slide housing torque max. with AVM	[Nm]	-	165	-	-	210	-
Protection class	[class]	II (DIN EN 60745-1)	I (DIN EN 60204-1)	II (DIN EN 60745-1)	II (DIN EN 60745-1)	I (DIN EN 60204-1)	II (DIN EN 60745-1)
Noise level at the workplace approx.	[dB (A)]	79	79	79	79	79	79
Vibration level (according to DIN EN 28662, part 1)	[m/s ²]	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5
Mains fuse by customer	[A]	16	16	16	16	16	16
Dimensions (lxwxh)	[mm] [inch]	778 x 430 x 485 30.6 x 16.9 x 19.1	918 x 430 x 485 36.1 x 16.9 x 19.1	788 x 430 x 485 31.0 x 16.1 x 19.1	940 x 374 x 592 37.0 x 14.7 x 23.3	1.070 x 374 x 592 42.1 x 14.7 x 23.3	1.090 x 374 x 592 42.9 x 14.7 x 23.3
Weight of machine approx.***	[kg] [lbs]	102.5 225.9	110.0 242.5	104.6 230.6	138.6 305.6	146.1 322.1	140.7 310.2
Versions (single-phase AC)	[V, Hz]	230 V, 50/60 Hz 120 V, 50/60 Hz	230 V, 50/60 Hz 120 V, 50/60 Hz	230 V, 50/60 Hz 120 V, 50/60 Hz	230 V, 50/60 Hz 120 V, 50/60 Hz	230 V, 50/60 Hz 120 V, 50/60 Hz	230 V, 50/60 Hz 120 V, 50/60 Hz
SCOPE OF DELIVERY		RA 8	RA 8 AVM*	RA 8 MVM*	RA 12	RA 12 AVM*	RA 12 MVM*
Pipe cutting and beveling machine	Pc.	1	1	1	1	1	1
Transportation case	Pc.	1	1	1	1	1	1
Saw blade (Code 790 043 018)	Pc.	1	1	1	1	1	1
Mounting plate	Pc.	1	1	1	1	1	1
Tool set	Set	1	1	1	1	1	1
Saw blade lubricant GF TOP (Code 790 060 228)	Tube	1	1	1	1	1	1
Special gear oil (Code 790 041 030)	Bottle	1	1	1	1	1	1
Operating instructions and spare parts list	Set	1	1	1	1	1	1

The technical data are not binding. They are not warranted characteristics and are subject to change. Please consult our general conditions of supply.

* The automatic/manual feed module AVM/MVM is already fitted to the pipe cutter upon delivery.

** With automatic cutting process. Increased wall thickness possible with manual feed or by adding an additional cut (depending on the saw blade diameter).

*** Weight without packaging and accessories.

All RA's are fitted with the swivel cable with a quick-disconnect coupler.

FEED VERSIONS:

Pipe cutting and beveling machine with **automatic feed module AVM***: This intelligent solution continuously controls the cutting speed depending on the torque and the parameter settings. The AVM improves the handling of the GF and RA machine and stops automatically after the cutting process.

Pipe cutting and beveling machines **with manual feed module MVM***: This manually operated feed module facilitates the cutting and beveling of pipes. With the help of a hand wheel, the machine head rotates easily and with little effort around the pipe with a constant speed.

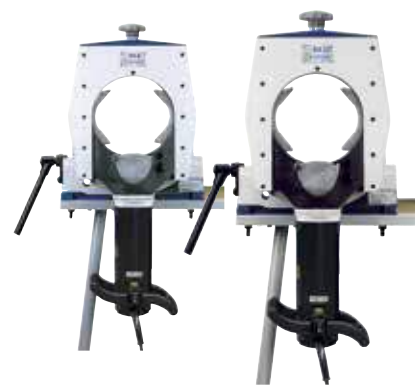


Pipe cutting and beveling machines

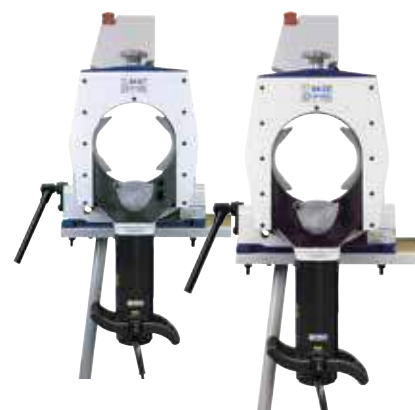
RA 8, RA 12 (AVM/MVM)

Features, application range, technical data and scope of delivery, see from page 13.

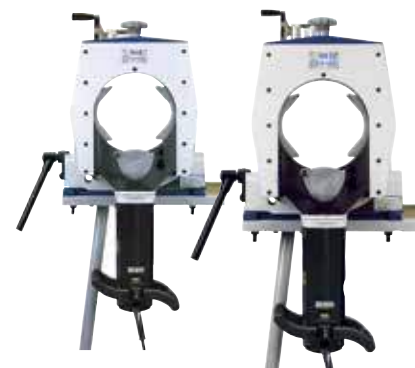
ARTICLE	VERSION	CODE	WEIGHT OF MACHINE KG	DISPATCH WEIGHT KG
RA 8	230 V, 50/60 Hz EU	790 045 095	102.500	149.000
RA 8	120 V, 50/60 Hz EU/US	790 045 096	102.500	149.000
RA 8 AVM	230 V, 50/60 Hz EU	790 045 001	110.000	165.000
RA 8 AVM	120 V, 50/60 Hz EU/US	790 045 007	110.000	165.000
RA 8 MVM	230 V, 50/60 Hz EU	790 045 069	103.000	153.000
RA 8 MVM	120 V, 50/60 Hz EU/US	790 045 082	103.000	153.000
RA 12	230 V, 50/60 Hz EU	790 047 095	138.600	177.000
RA 12	120 V, 50/60 Hz EU/US	790 047 096	138.600	177.000
RA 12 AVM	230 V, 50/60 Hz EU	790 047 001	146.000	205.000
RA 12 AVM	120 V, 50/60 Hz EU/US	790 047 007	146.000	205.000
RA 12 MVM	230 V, 50/60 Hz EU	790 047 069	140.700	200.000
RA 12 MVM	120 V, 50/60 Hz EU/US	790 047 082	140.700	200.000



RA 8, RA 12



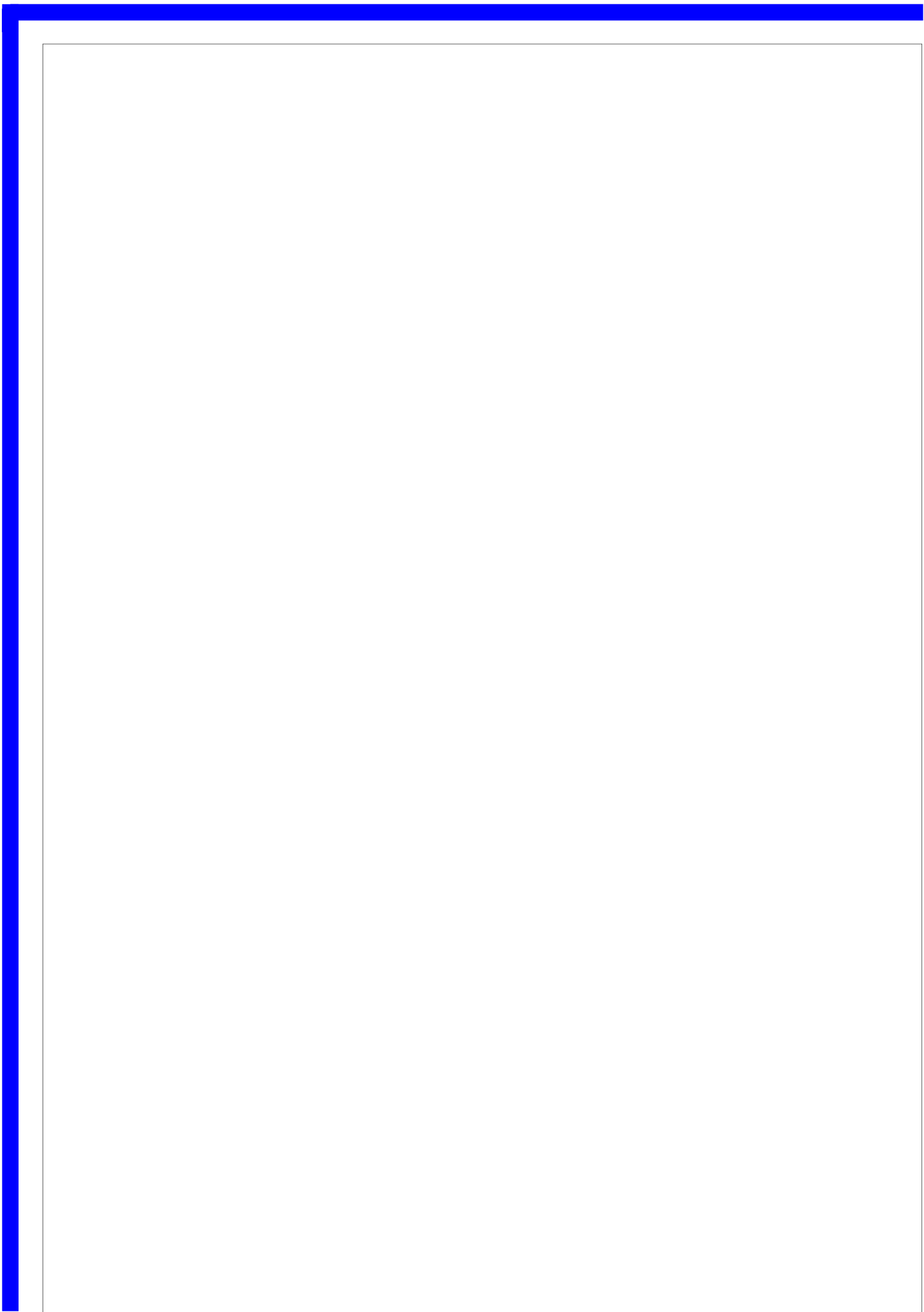
RA 8 AVM, RA 12 AVM



RA 8 MVM, RA 12 MVM

Suitable accessories

- Saw blades and bevel cutters, see from page 27
- High-performance lubricants for cutting and beveling, see page 22
- Special gear oil, see page 22
- Swivel cable, see page 23
- Quick-mounting base plates with integrated screw clamps, see page 23
- Mobile workstation, see page 23
- Pipe feeder base unit and extension unit, see from page 24



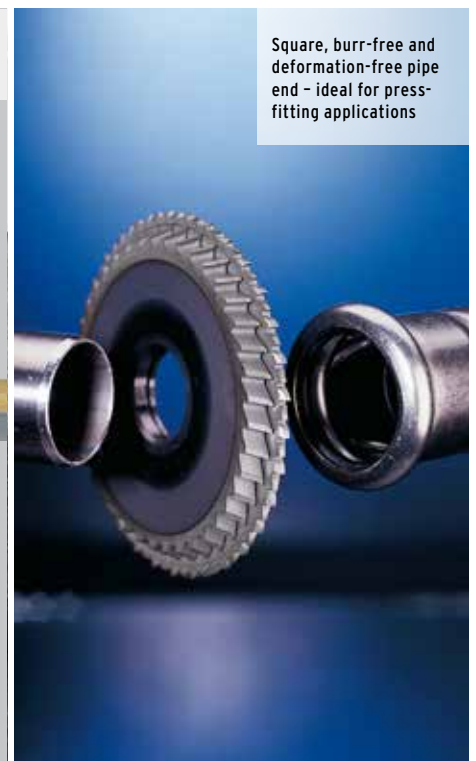
GFX 3.0, GFX 6.6

Pipe cutting and beveling machines

Innovative saws from Orbitalum Tools for cutting and beveling of tubes and for cutting off elbows (also for thin-walled stainless steel) in just seconds. The perfect preparation for orbital welding!
Easy to use, powerful and compact saw with low weight - our new GFX provides even more outstanding features.



The GFX series: Easy to handle, powerful and compact



Square, burr-free and deformation-free pipe end - ideal for press-fitting applications

Our GFX series is the ideal solution for cutting of thin-walled tubes. The rugged design for a long product life makes the saws especially economical. Furthermore, the long tool lives thereby increase the productivity.

The GFX series is extremely low-maintenance and service-friendly and offers a large range of applications. Materials which can be processed are unalloyed, low-alloy and high-alloy steels, stainless steels, non-ferrous metals, aluminum alloys, titanium alloys, composite materials and plastics.

As is characteristic for the ORBITALUM pipe saws, the saw allows convenient marking of the cut-off point on the tube with the help of a line laser.

A second saw blade clamping point enables tube elbows to be cut off.

The powerful motor is equipped with overload protection and ergonomic handles and is available for the voltages 230 V, 50/60 Hz or 120 V, 50/60 Hz.

The cable connection with a quick-release screw coupler enables simple, convenient replacement of the flexible swivel cable.

The applications lie mainly in the food processing, beverage, pharmaceutical and chemical industries.

- Square, burr-free and cold machining process
- Deformation-free clamping system especially applicable for thin-walled tubes
- Easy handling through light weight
- Simultaneous or separate cutting and beveling
- Increased productivity
- Low-maintenance and service friendly
- Second saw blade position to cut off elbows

- Ideal for pressfitting applications
- Optimized chip flow due to a new vice design
- Cast iron clamping jaws
- Integrated line laser to determine the cut off point
- Ergonomically designed motor handle
- Powerful drive with 1.2 kW and adjustable speed control for cutting several materials and extended tool life
- Electronic overload protection with integrated temperature monitor and electronic speed regulation
- Increased durability of tools due to the new drive GF10
- Ergonomically positioned speed control adjusting wheel
- Swivel cable with a quick-disconnect coupler: For easy and quick replacement of power cables
- Direct mounting on workbench possible with GFX 3.0



Second saw blade position to cut off elbows



Cast iron clamping jaws with stainless steel caps



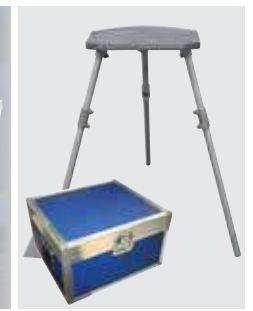
Integrated line laser to determine the cut off point



Powerful drive with electronic overload protection and ergonomically designed motor handle



Saw blade lubricant GF TOP included



Tripod made of aluminum and high-quality padded blue shipping case for GFX 3.0 optional available

APPLICATION RANGE		GFX 3.0	GFX 6.6
Code	[230 V]	790 144 001	790 146 001
	[120 V]	790 144 002	790 146 002
Tube OD	[mm]	6.0 - 78.0	21.3 - 168.3
	[inch]	0.236 - 3.071	0.838 - 6.659
Wall thickness	[mm]	0.8 - 7.0	0.8 - 7.0
	[inch]	0.031 - 0.275	0.031 - 0.275
Tube ID min. (saw blade Ø 63/2.248")	[mm]	0	23.0
	[inch]	0	0.905
OD range (saw blade Ø 63/2.248")	[mm]	6.0 - 78.0	24.6 - 168.3
	[inch]	0.236 - 3.071	1.008 - 6.659
Tube ID min. (saw blade Ø 68/2.677")	[mm]	0	18
	[inch]	0	0.708
OD range (saw blade Ø 68/2.677")	[mm]	6.0 - 73.0	21.3 - 168.3
	[inch]	0.236 - 2.874	0.838 - 6.659
Tube ID min. (saw blade Ø 80/3.149")	[mm]	-	6.0
	[inch]	-	0.236
OD range (saw blade Ø 80/3.149")	[mm]	-	21.3 - 156.0
	[inch]	-	0.838 - 2.205
Tube materials	Unalloyed, low-alloy and high-alloy steel, stainless steel, non-ferrous metal, aluminum alloy, titanium alloy, composite material and plastic		
TECHNICAL DATA		GFX 3.0	GFX 6.6
Dimensions (lxwxh)	[mm]	570 x 330 x 280	575 x 350 x 671
	[inch]	22.44 x 12.99 x 11.02	22.64 x 13.78 x 26.42
Weight incl. vice, without clamping shells	[kg]	28.5	74.4
	[lbs]	62.83	164.02
Power	[W]	1200	1200
Protection class	[class]	II	II
Built-in electronic variable cutting speed with restart inhibitor	[rpm]	30 - 200	30 - 200
Versions (single-phase AC)	[V, Hz]	230 V, 50/60 Hz EU	230 V, 50/60 Hz EU
	[V, Hz]	120 V, 50/60 Hz US	120 V, 50/60 Hz US
Vibration level (EN 50144)	[m/s ²]	< 2.5	< 2.5
Noise level at the workplace (EN 23741)	[dB (A)]	79.7	79.7
SCOPE OF DELIVERY		GFX 3.0	GFX 6.6
Pipe cutting and beveling machine	Pc.	1	1
Wooden transportation case	Pc.	1	1
Saw blade (Code 790 ...)	Pc.	1 (...041 035)	1 (...042 064)
Quick-mounting plate without screw clamps*	Pc.	-	1
Stainless steel caps**	Set	1	1
Line laser with holder and fastening screws***	Pc.	1	1
Tool set	Set	1	1
Saw blade lubricant GF TOP (Code 790 060 228)	Tube	1	1
Operating instructions and spare parts list	Set	1	1



GFX 3.0, GFX 6.6

The technical data are not binding. They are not warranted characteristics and are subject to change. Please consult our general conditions of supply.

* The GFX 3.0 can be mounted directly on the workbench without a quick-mounting plate. Quick-mounting plates with screw clamps for GFX 3.0 and GFX 6.6 are available optionally.

** Already mounted on the sliding clamping jaws of the GFX at delivery.

*** The line laser has to be mounted on the GFX before commissioning.

Pipe cutting and beveling machines

GFX 3.0, GFX 6.6

Features, application range, technical data and scope of delivery, see page 17.

ARTICLE	VERSION	CODE		WEIGHT OF MACHINE KG	DISPATCH WEIGHT KG
GFX 3.0	230 V, 50/60 Hz EU	790 144 001		28.000	44.000
GFX 3.0	120 V, 50/60 Hz US	790 144 002		28.000	44.000
GFX 6.6	230 V, 50/60 Hz EU	790 146 001		74.400	104.000
GFX 6.6	120 V, 50/60 Hz US	790 146 002		74.400	104.000



GFX 3.0, GFX 6.6

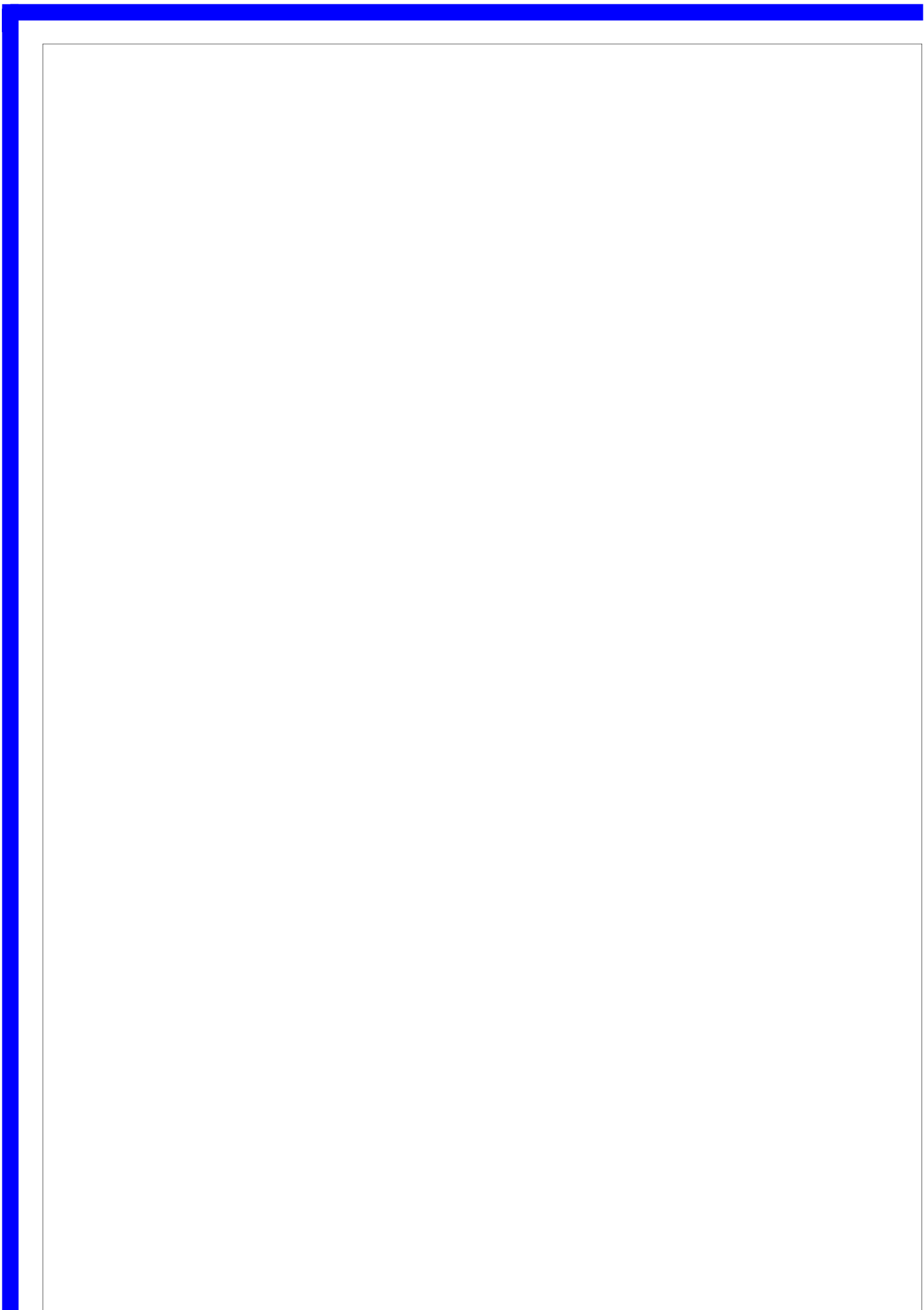
Durable storage and shipping case

High-quality padded blue shipping case. Particularly sturdy design.

ARTICLE	CODE		KG
Durable storage and shipping case for GFX 3.0	790 144 019		12.500



Durable storage and shipping case



PS 4.5 Plus, PS 6.6

Portable tube saws

A mobile, powerful and flexible tube cutting machine for use on construction sites, that's what the PS series from Orbitalum Tools stands for. These tube saws convince not only with their burr-free, right-angled and deformation-free cutting results, but also with their low weight. At the same time its problem-free and simple usage as well as its unbeatable price are the prime factors among its users.

Simple and convenient to use:
The PS saws can be mounted quickly with minimum space requirements and transported and operated by a single person

The new PS 4.5 Plus with many advantages:

- ✓ Refined technology with new design
- ✓ The lightest machine in this field of application on the market
- ✓ Reduced price - despite additional advantages
- ✓ Integrated line laser to determine the cut off point
- ✓ Feeding and sawing in a single pass
- ✓ Improved quality and increased service life through even more rugged sliding elements
- ✓ Tripod (optional) made of aluminum - now space-saving storage in the PS transport case possible

No rework necessary because of a burr-free and square cut

Currently one of the lightest machines available on the market

Deformation-free clamping of thin-walled tubes

Integrated line laser to determine the cut off point

Tube cutting made easy! Cutting thin-walled stainless-steel tubes and elbows using the superior "Planetary cutting technology".

For its field of applications, the PS 4.5 Plus (23 kg) as well as the PS 6.6 (26 kg) are amongst the lightest in their class available machines on the market today.

"Enhanced safety due to stationary tube - rotating tool." The tested process of planetary cutting is another important feature, which characterizes all ORBITALUM pipe cutting machines. The saw blade rises into the cutting area and is driven orbitally around the pipe. The advantage is that a small saw blade can cut a large tube diameter, without heating the tube.

As is characteristic for the ORBITALUM pipe saws, the saw allows convenient marking of the cut-off point on the tube with the help of a line laser. A second saw blade clamping point enables tube elbows to be cut off.

The powerful motor is equipped with over-load protection and ergonomic handles and is available for the voltages 230 V, 110 V or 120 V, 50/60 Hz.

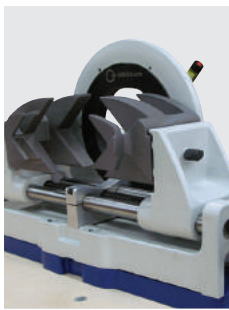
The slide housing as well as the self-centering clamping jaws were produced from high-quality aluminum alloys, which measure up to the highest requirements for construction sites.

- Lightweight and easily transportable machine to provide flexibility for on-site applications
- Deformation-free clamping of thin-walled tubes
- For cutting of thin-walled tubes and elbows
- No rework necessary because of a burr-free and square cut
- Cold cutting process prevents corrosion
- Integrated line laser to determine the cut off point
- Orbital cutting process saves time
- Multiple point clamping
- Fast adjustment of the pipe dimension
- Long saw blade service life
- Press fitting saw blade combinations can be used*
- Speed controlled single-phase AC motor with restart inhibitor

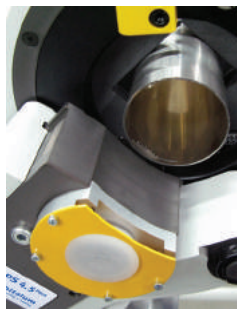
* Only with saw blade/bevel cutter combinations of Orbitalum Tools: Code 790 044 046 or 790 044 047. Especially for stainless steel press fitting systems. Consisting of one saw blade and one bevel cutter. It is possible to order the individual parts separately. Workable wall thickness: 1 - 2 mm (0.039" - 0.079"), beveling angle: 45°/70°, height of bevel: max. 0.4/1 mm (0.016"/0.039").



Supplied in a durable storage and shipping case with compartments for accessories, for example the mounting plate, tools and now also for the tripod (optionally available)



Self-centering vice made of high-quality aluminum alloy



Tried-and-tested planetary cutting technology: The saw blade immerses into the cut and is guided orbitally around the tube



Included: "Performance" saw blade (790 048 072) and saw blade lubricant GF TOP



Second saw blade position to cut off elbows



Tripod made of aluminum optional available. Can be dismantled in a few steps - for space-saving storage, for example in the PS transport case

APPLICATION RANGE		PS 4.5 Plus	PS 6.6
Code	[230 V]	790 048 001	790 049 001
	[110 V]	790 048 002	790 049 002
	[120 V]	790 048 003	790 049 003
Tube OD	[mm]	6 - 120	50* - 170
	[inch]	0.236 - 4.724	1.969* - 6.693
Elbow OD	[mm]	30 - 120	50* - 170
	[inch]	1.181 - 4.724	1.969* - 6.693
Wall thickness max.	[mm]	3	3
	[inch]	0.118	0.118
TECHNICAL DATA		PS 4.5 Plus	PS 6.6
Dimensions	[mm]	480 x 230 x 600	480 x 230 x 660
	[inch]	20.9 x 9.1 x 23.6	20.9 x 9.1 x 26
Power	[W]	1100	1100
	[hp]	1.5	1.5
Protection class (DIN VDE 0740, isolated)	[class]	II	II
Speed	[rpm]	30 - 165	30 - 165
Vibration level (DIN EN 28662, part 1)	[m/s ²]	< 2.5	< 2.5
Noise level at the workplace approx.	[dB (A)]	78	78
SCOPE OF DELIVERY		PS 4.5 Plus	PS 6.6
Portable tube saw	Pc.	1	1
Cast aluminum clamping jaws	Set	1	1
Durable storage and shipping case	Pc.	1	1
Saw blade (Code 790 048 072)	Pc.	1	1
Tool bag equipped with tools	Pc.	1	1
Saw blade lubricant GF TOP (Code 790 060 228)	Tube	1	1
Operating instructions and spare parts list	Set	1	1



PS 4.5 Plus, PS 6.6

The technical data are not binding. They are not warranted characteristics and are subject to change. Please consult our general conditions of supply.

* It is possible to cut tubes with an outer diameter min. 30 mm (1.181") with the PS 6.6 by using additional clamping jaws (accessory, Code 790 048 380). These clamping jaws are delivered as a standard with the PS 4.5 Plus.



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**PORTABLE PIPE CUTTING
AND WELD PREPARATION MACHINE
FOR CUTTING PIPE IN SITU
OR IN THE WORKSHOP**

CLYDE

**LOW CLEARANCE
SPLIT FRAME**



Models LC

CLYDE

LOW CLEARANCE SPLIT FRAME

VERSATILITY

- Models available for 2" dia. to 30" o.d. pipe in any combination of sizes on 4"-6" increments.
- Interchangeability of accessories between sizes e.g. Drive motors, tool slides etc.
- One machine can cut and bevel simultaneously.
- Pipe materials: Carbon steel, stainless, duplex, ductile iron, kunifer.
- Wrap around clamps for thin wall pipe.
- Star wheel feed systems offers low clearance and simple to operate.

QUALITY

- Hardened and ground tool slides
- Hydrostatic Plain Bearing.
- Drive gear and bearing surfaces are covered and shielded.

TOOL SLIDE OPTIONS

- **Low Clearance Tool Slides** (1" travel) Feed Rate 0.0025/rev
- **Extended Tool Slides** (2" travel) Feed Rate 0.0025/rev
- **Counterboring Tool Slides**
- **Spring Loaded out-of roundness compensator tool slide**, which permits the cutting tool to follow the pipe ovality.
- **Taper Turning Tool Slides**
- **Custom Built Tool Slides** special applications
- **Depth controlled tool slides** grooving etc.

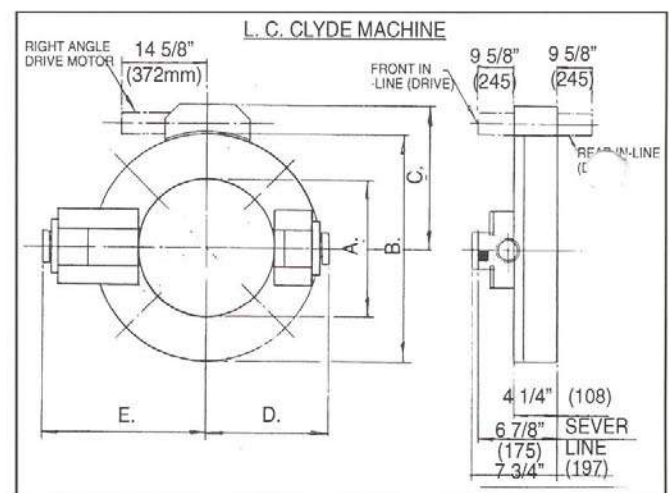
DRIVE OPTIONS

- **PNEUMATIC** 1.5 HP. 90 p.s.i. - 48 cfm (3.5 HP available on request)
- **Hydraulic** 2.8 HP. 100 bar - 30 litres/min
- **In-Line Drive Assy (Front)**
- **In-Line Drive Assy (Rear)**

ACCESSORIES

- Flange Facing Module
- Clamp Extension Legs
- Backing ring plates for special mounting applications

DIMENSIONS



IMPERIAL	MACHINE CAPACITY	DRIVE RING ASSY WEIGHT	BORE DIAMETER	DIAMETER	DIMENSION	DIMENSION	DIMENSION
MODEL	ins.	lb.	A ins.	B ins.	C ins.	D ins.	E ins.
LC-2-6	2-6	80	7.375	13.375	9.958	8.000	9.537
LC-4-8	4-8	102	9.375	15.375	10.959	8.985	10.522
LC-6-12	6-12	146	13.500	19.500	13.041	10.988	12.539
LC-12-18	12-18	203	18.750	24.750	15.625	13.613	15.164
LC-18-24	18-24	268	24.750	30.750	18.625	16.593	18.148
LC-24-30	24-30	334	30.750	36.750	21.625	19.578	21.136

DETACHABLE MOTOR ASSY WT. = 19 lb
STANDARD TOOLBOX WT. = 5.5 lb
EXTENDED TOOLBOX WT. = 6.5 lb

METRIC	MACHINE CAPACITY	DRIVE RING ASSY WEIGHT	BORE DIAMETER	DIAMETER	DIMENSION	DIMENSION	DIMENSION
MODEL	mm	kg.	A mm	B mm	C mm	D mm	E mm
LC-2-6	51-152	36	187	340	253	203	242
LC-4-8	102-203	46	238	390	278	228	267
LC-6-12	152-305	66	343	495	331	279	319
LC-12-18	305-457	92	476	629	397	346	385
LC-18-24	457-610	122	629	781	473	421	461
LC-24-30	610-762	152	781	933	549	497	537

DETACHABLE MOTOR ASSY WT. = 9 kg
STANDARD TOOLBOX WT. = 2.5 kg
EXTENDED TOOLBOX WT. = 3 kg



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HOLLAND

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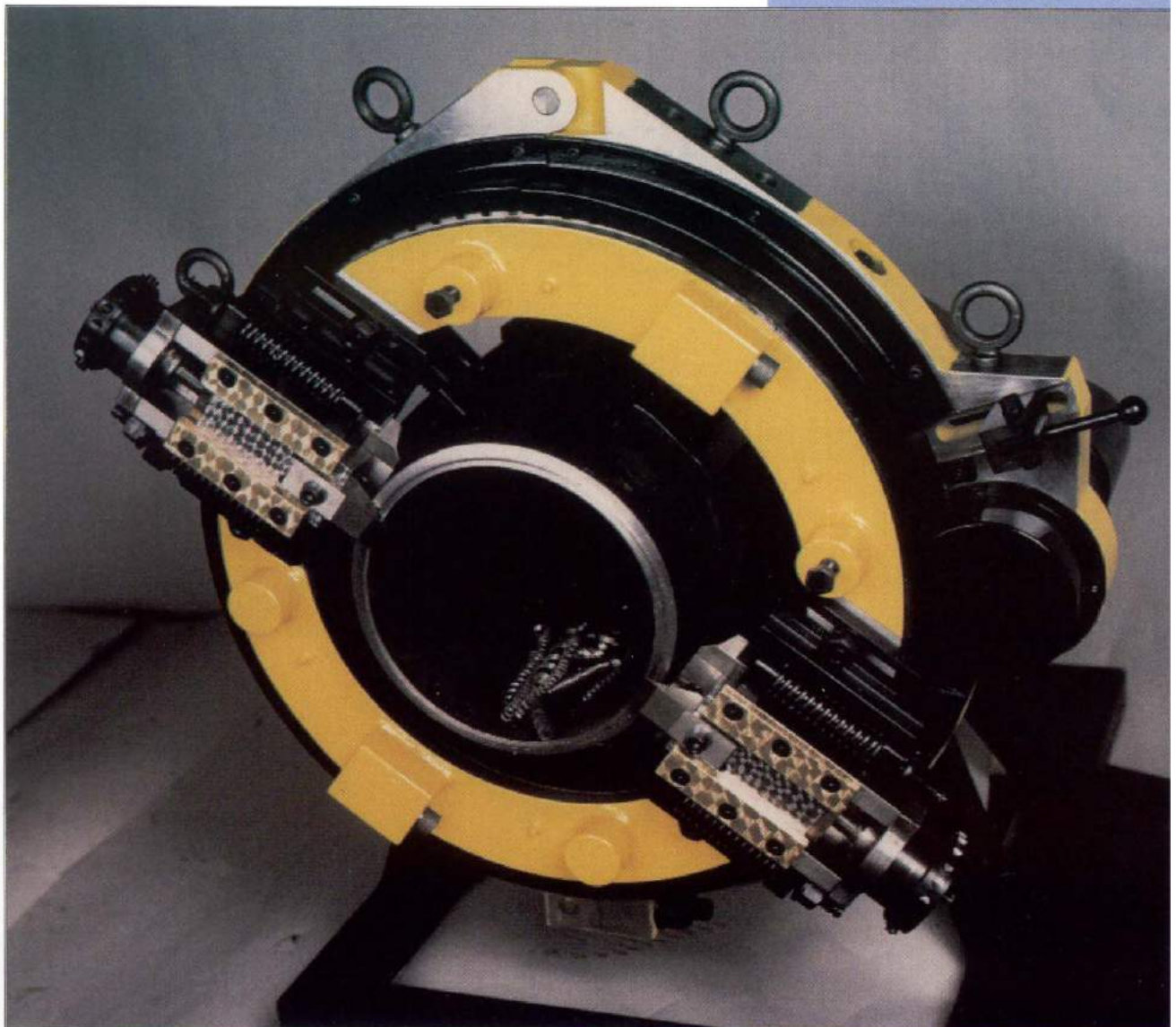
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CLYDE

**PORTABLE PIPE CUTTING
AND WELD PREPARATION MACHINE
FOR CUTTING PIPE IN SITU
SUB-SEA OR IN THE WORKSHOP**



MODELS C1

INTRODUCTION

The 'Clyde' range of Portable Pipe Cutting and Beveling Machines are ruggedly designed to give long life and rigidity in the most arduous conditions.

The Split Frame design enables inline pipe to be cut and bevelled simultaneously. 'Clyde' machines are simple to operate and require minimum operator skill. They eliminate burning and grinding operations. Pipe Clamps, Tool Boxes, Feed Unit and Drive Units are all interchangeable throughout the "Clyde" range. The Standard Machines cover from 6" diameter through to 36" diameter. Specials and large capacity machines can be supplied.

CLYDE

VERSATILITY

DRIVE OPTIONS

Hydraulic or Pneumatic (Remote if required).

CLAMPING OPTIONS

4 - Independant adjustable chuck jaws.

Backing ring plates for special mounting applications

4 - Self-squaring adjustable chuck jaws.

TOOL BOX OPTIONS

Standard Tool Box star wheel feed .003"/Rev.

Dancer Tool Box with in-built out of roundness feature, which permits the cutting tool to follow the contour of the pipe. Star wheel feed .003/Rev.

Manual Feed Tool Boxes.

Right Angle Tool Boxes for weld preparation and counter boring.

Parallel & Taper Turning Tool Boxes.

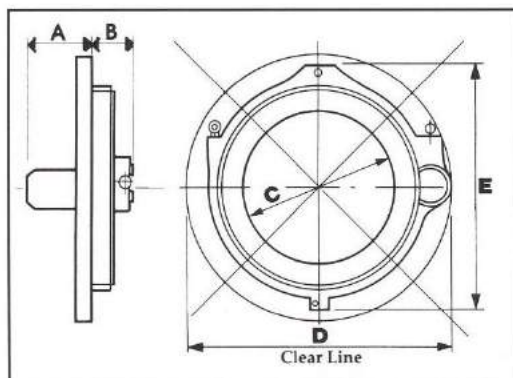
Custom Built Tool Boxes for special applications.

Milling Heads for Rotary Milling & Drilling.

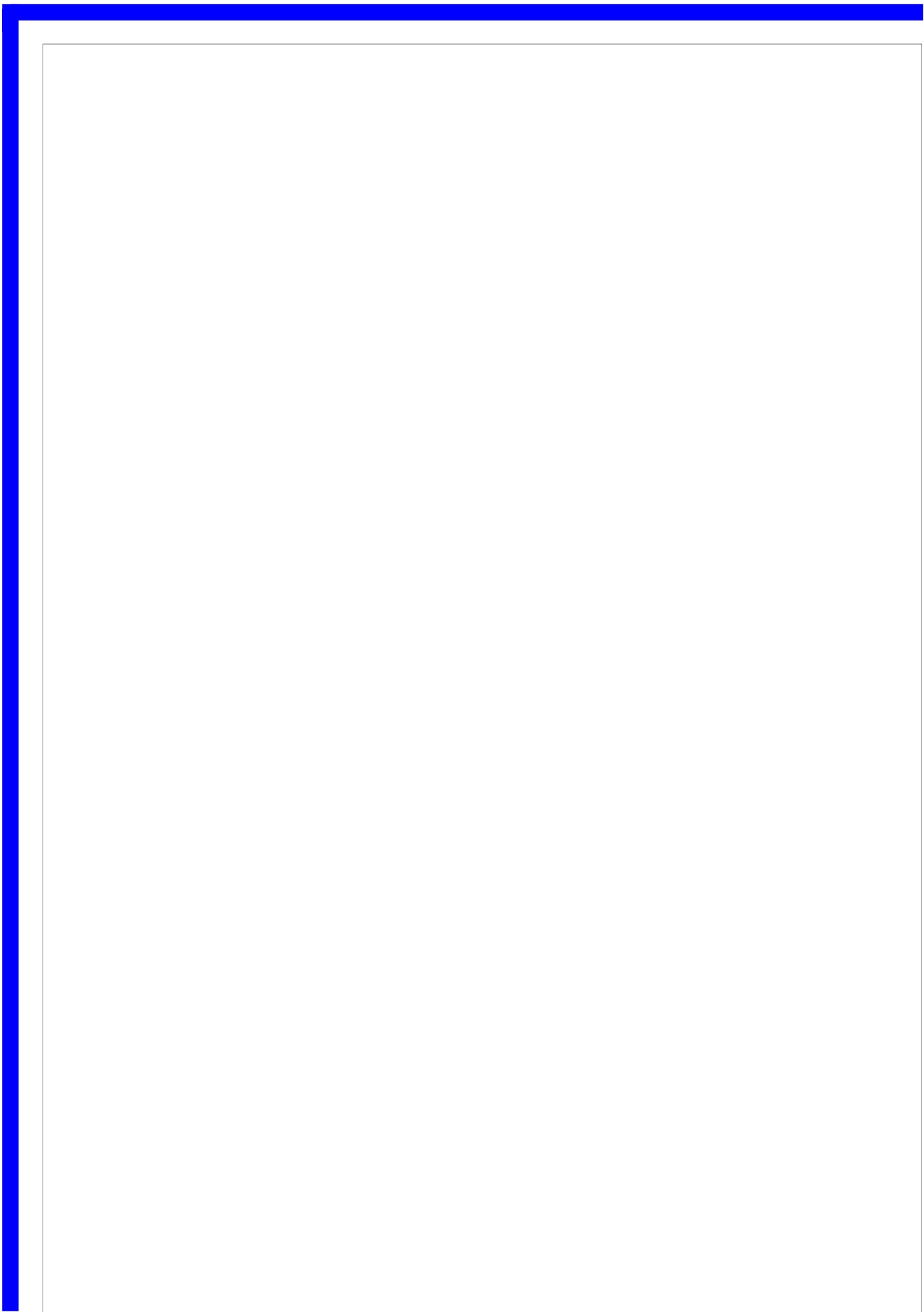
AIR DATA			
No.	Capacity	Work'g rpm	
C1	6"-12"	14.5	Max H.P. = 3
C2	12"-18"	11.00	R.P.M. at max. H.P. = 83
C3	18"-24"	9.00	Consumption of air at max. H.P. = 95 cfm based on 90 P.S.I.
C4	24"-30"	8.00	
C5	30"-36"	7.00	

HYDRAULIC DATA								
MACHINE			MOTOR					
No.	Capacity	Work'g rpm	H.P.	R.P.M.	Torque lbs/□"	Max Oil Press		Oil Flow G.P.M.
					lbs/□"	bar		
C1	6"-12"	21	7.5	119	4000	1400	100	7.9
C2	12"-18"	14	6.4	101				6.97
C3	18"-24"	10	5.8	92				6.6
C4	24"-30"	8	5.4	86				6.26
C5	30"-36"	7	5.2	83				6.1

DIMENSIONS



MODEL		C1	C2	C3	C4	C5
Pipe Outside Diameter	mm	152-304	304-457	457-610	610-762	762-915
Capacity	in	6-12	12-18	18-24	24-30	30-36
Dimension 'A'	mm	168	168	168	168	168
	in	6 5/8	6 5/8	6 5/8	6 5/8	6 5/8
Dimension 'B'	mm	144.5	144.5	144.5	144.5	144.5
	in	5 11/16	5 11/16	5 11/16	5 11/16	5 11/16
Dimension 'C'	mm	394	521	699	851	1003
	in	15 1/2	21 1/2	27 1/2	33 1/2	39 1/2
Dimension 'D'	mm	800	953	1105	1257	1410
	in	31 1/2	37 1/2	43 1/2	49 1/2	55 1/2
Dimension 'E'	mm	716	868	1021	1173	1326
	in	28 3/16	34 3/16	40 3/16	46 3/16	52 3/16
Overall Weight excluding x2 Tool Boxes 14.4Kg (32lb)	Kg	154	192	231	271	310
	lb	339	423	510	597	683





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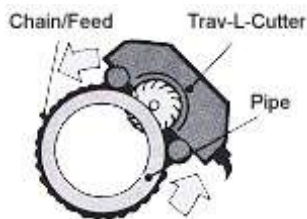
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Trav-L-Cutter Pipe cutting and beveling machine



Trav-L-Cutter is a portable milling machine. It makes cold cuts, and/or bevels at the same time on all pipe sizes from 6" and up, on all pipe schedules and on any material that can be machined. Secured by its own tensioning chain, it crawls around the pipe, cutting and/or beveling at the same time.

Operates Anywhere

With air or hydraulic power, the Trav-L-Cutter will operate on horizontal or vertical pipe, in the field or in the shop. It cuts and bevels in a mud filled ditch or under water, where it has been used in chambers and free diving to depths of 600 feet.



All Pipe Diameters, Including Tanks

Any machineable material such as carbon steel, stainless steel, ductile iron, cast iron and most alloys, in all pipe sizes from 6" to 72" can be cold cut and beveled simultaneously. Even tanks and vessels up to 33 feet in diameter can be precision cut.

Machine Shop Accuracy within .005"

A smooth machined finish with typical tolerances of up to 1/16" closure is normal. The chain feed system provides positive drive under all conditions for accurate, clean cuts while maintaining continuous out of round compensation. Accuracy of up to .005" is maintained by using an accessory Guide Track, available for all pipe diameters.



Use of the track and special Guide Track Wheels allows cutting with machine shop accuracy in zero visibility situations. On all vertical pipe cuts; underwater cuts and for all multiple pass cutting.

Safe, Cold Cutting

The Trav-L-Cutter can be used in explosive conditions, on natural gas, crude, product and fuel lines. It has even been used to cut missile fuel cells.

Fast, Reliable

A standard wall pipe can be cut and beveled with a cutting speed of approximately 1 minute per 1" of pipe diameter. Cutting time varies for heavier walls and harder alloys. Due to its rugged construction, it is not unusual to find machines still operating after 10 or 20 years of severe service.

The Cutting Method

Trav-L-Cutter high-speed milling cutters remove 3/16" of metal while cutting, leaving the pipe end with a machined finish and the physical properties unchanged. This cutting method facilitates section removal in the field. New sections, pre-cut by the same method are easily dropped in place.

Compact Design, Easy Set-up

Lightweight, low profile design needs only 10" to 12" of clearance and set up time is ten minutes or less. Once the adjustable drive chain is pinned together and tensioned around the pipe the machine is ready to operate.

Standard Weld Prep Capability

Any type of weld prep detail can be achieved from a common 300 or 37-1/20 bevel on standard wall carbon steel to multiple-angle J bevels, with counterbore and taper, on extra heavy wall chrome-moly.

Grooved, Mechanical Joint Preparation

The Trav-L-Cutter can simultaneously cut off and groove pipe in one cut. Cutters are available for Victaulic and other grooved coupling systems.

Offshore or Pipe Line Maintenance

The Hydraulic Trav-L-Cutter offers the inherent advantages of a completely sealed and self-lubricating closed loop system. The Model HE is particularly suited to field machining operations under the type of hostile conditions often found in pipe line maintenance and construction such as dirt, sand and water. It is a portable pipe cutting machine that can be used conveniently on offshore drilling rigs, pipe lines and on construction work in rivers and harbors.

Corrosion Resistant

Corrosion from constant exposure to salt water can be minimized with an accessory package that includes extensive use of stainless steel fasteners, special bearings and seals and high zinc coating.



Capacity

6" thru 72" (153 to 1829 mm) pipe, large diameter vessels. All schedules.

Cutter Drive:

Pneumatic: 4 H.P. Governed Air Motor coupled with worm gearbox

Hydraulic:

As above, with hydraulic motor

Cutter Speed:

Pneumatic: 55 R.P.M. Internally adjustable from 35 to 55 R.P.M. for use on alloys that might become work hardened. Hydraulic; Adjustable 0-60 R.P.M.

Feed:

Pneumatic: 3/4 H.P. Air Motor coupled through overload clutch, gearbox and chain reduction to final machine drive sprocket. Hydraulic: 4 H.P. Hydraulic Moto

Feed Method:

Positive, non-slip chain drive

Hydraulic Requirements:

15 gpm @ 1500 psi. (57 l/s @ 106 bar)

Work Speed:

3" of surface feed per minute, maximum (1 Dia. In/Min). i.e. 10" pipe - 10 minutes, 20" pipe - 20 minutes. Reduced feeds required over 1/2" wall and most alloys.

Clearance:

10" to 12" (254 to 305 mm) radial, depending on pipe diameter. 20" axial (508 mm)

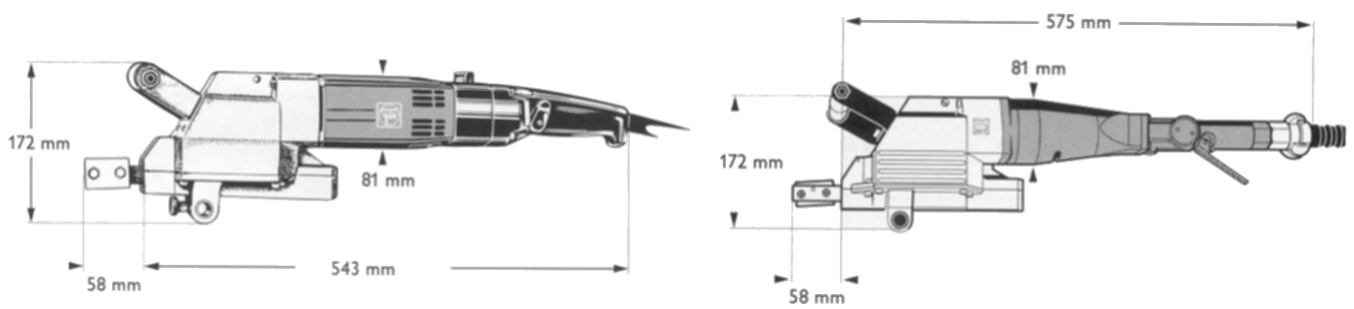
Weight:

Operating - 215 lbs. (97.7 kgs)
Shipping (typical): 418 lbs. (190 kg)

Dimensions:

Length: 24" (61 cm)
Width: 20" (51 cm)
Height: 10-3/4" (28 cm)

Dimensions



Options



Clamping and feeding unit for pipediam. 80 - 400 mm.



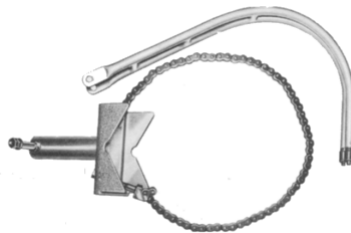
Clamping unit for pipediam. upto 159 mm.



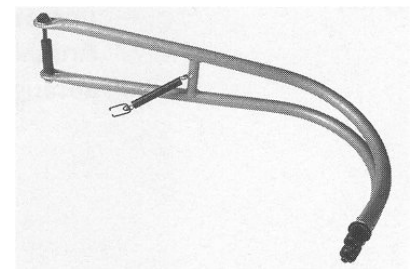
Clamping unit for pipediam. 100 - 325 mm.



Clamp for profiles upto 310 mm width and 550 mm. height



Clamping unit with guide for sawblade for pipes upto 530 mm. diameter



Zwa blade guide for pipes upto Ø 325 mm. Only be used with sawblade length 530 mm. and a thickness of 1,6 mm.

Sawblades

Sawblades can be supplied in lengths of 200 upto 770 mm. and in several executions (teeth pitch) dependent of the material to be sawed.



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HOLLAND

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WB Pipe Cutter



The powerfull pneumatic pipe cut machine with a high torque is an ideal machine to cut pipes from the following materials: Steel, stainless steel, cast iron, concrete, cement, clay pipe, plastics, PE, PVC, glasfiber and non-ferro metals.



Pipediameter	From 8" - "endless"
Pipediameter	From 6" with special cuttingblade Ø 160 mm
Working pressure	6 bar
Air consumption	3 m ³ /min
Power	2.4 kW
Free load speed	1800 1/min
Maximum load speed	1000 1/min
Max. wall thickness	till 50 mm
Ø cutting blade	180 mm
Weight (cutting unit)	12,5 kg
Height cutting unit	25 cm



Air treatment box



Toolholder



Guide chain assembly



Guide carriage



The machine is supplied with a cooling water connection.
 The WB Pipe Cutter is also available in hydraulic and pneumatic cut / bevel version.



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SLUISWEG 9 - NL - 6582 AG HEUMEN

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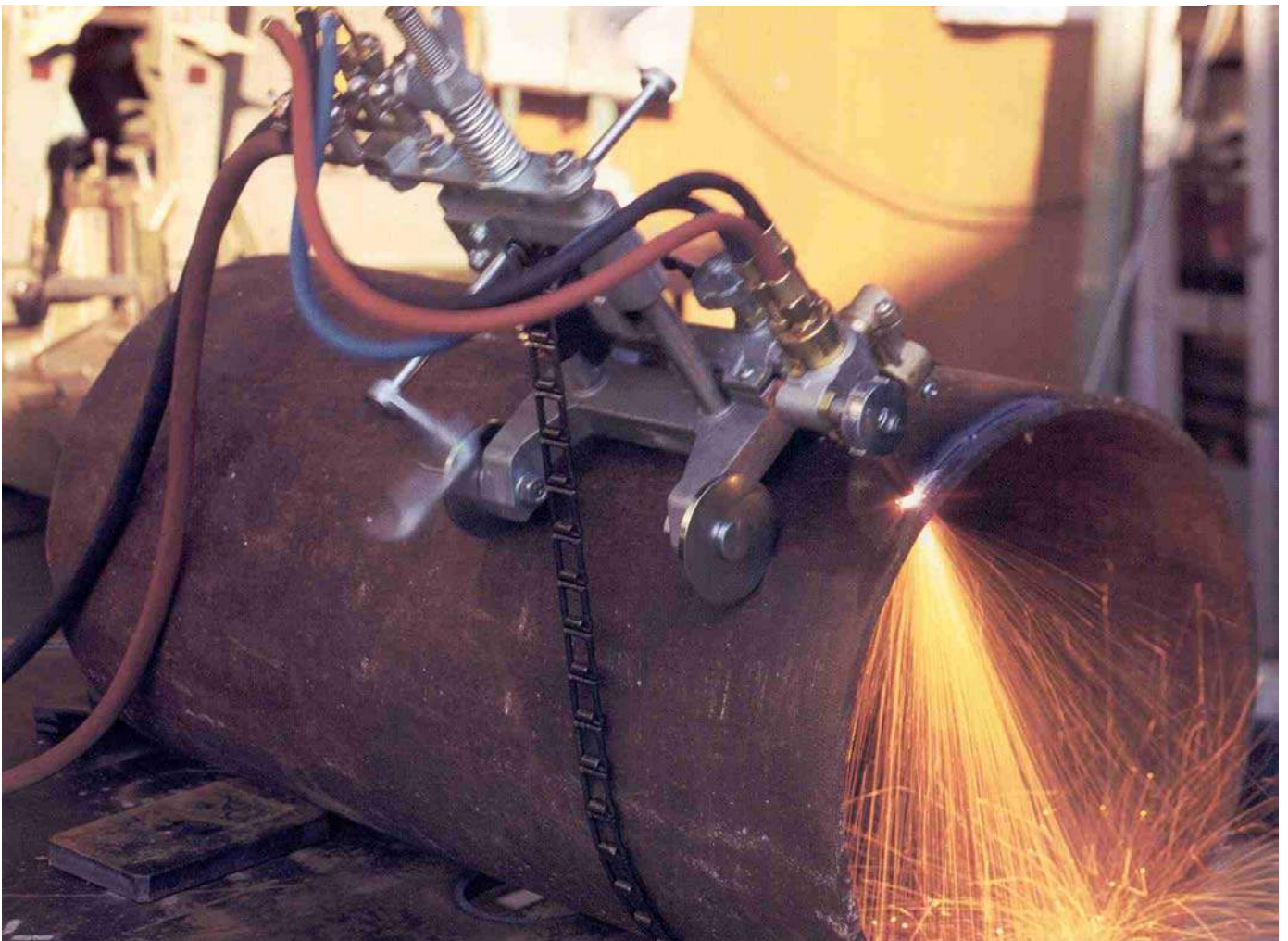
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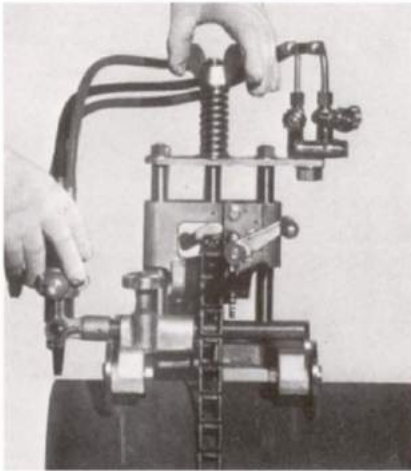
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Pipe cutting machine **PICLE-1**

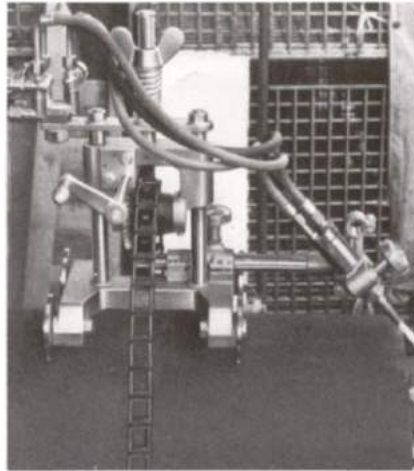


The PICLE-1 is a manual operated portable pipe cutting machine with a chain and gear drive system.

- Cutting of any size of pipe between 114~600mm ϕ (4"~24") is possible with a standard chain.
- The drive chain consists of simply designed, cleanly interlocking links. Links are easily added or removed for rapid change for pipe of different diameters.
- The drive is through a large worm and wormwheel. The low gear ratio results in extremely smooth travel.
- A graduated bevel collar ensures accurate bevel setting.
- The control valves for fuel, preheat oxygen and cutting oxygen are located away from the heat. They are conveniently placed for easy operator use.
- Weighing just 9kg (19.8lbs), this hard working unit offers low maintenance, easy operation and true portability.



Square cutting



Bevel cutting

How to adjust length of the chain

The length of the chain can be adjusted link by link, making it easy to match the chain to the circumference of the pipe.

The number of link required for a given job can be calculated as follows:

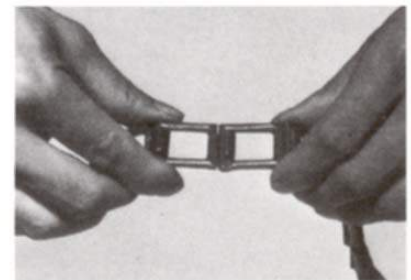
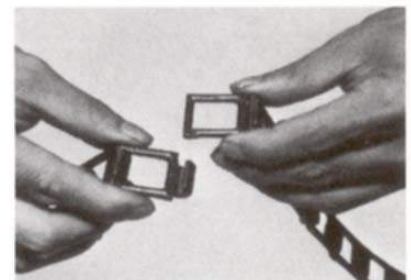
$$\text{Number of links} = \text{Pipe diameter} \times 1/10 + 13$$

Example calculation:

Number of links required for cutting 200mm ϕ pipe

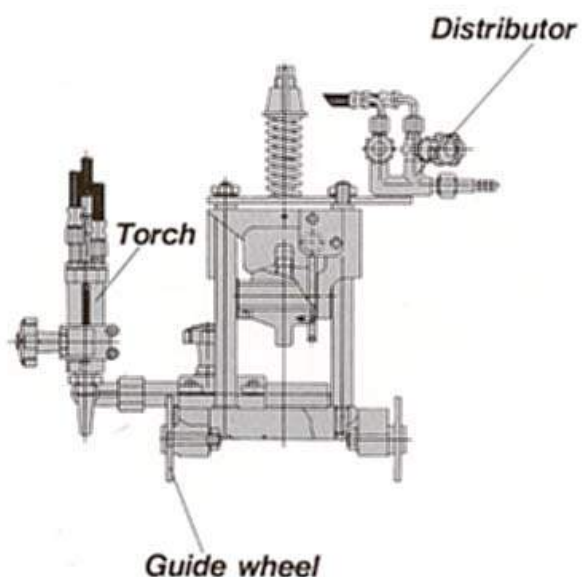
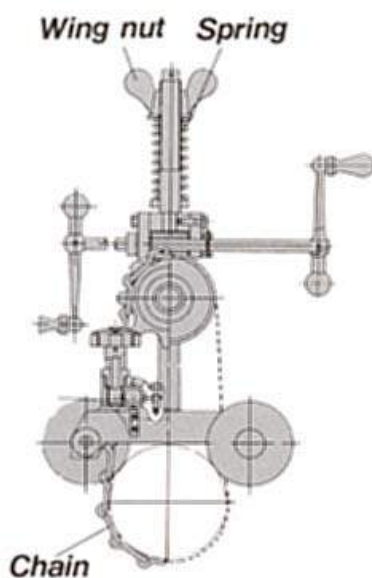
$$(200 \times 1/10) + 13 = 33$$

The cutting machine can easily be set at any part of the pipe that is convenient.



Specifications

Effective pipe diameter	114~600mm ϕ (4"~24") by standard chain (2.4m=96") over 600mm ϕ by extra chain addition
Cutting thickness	up to 50mm (2")
Cutting shape	Square and bevel (up to 45°)
Drive method	Manual
Tip	100 series for any fuel gas





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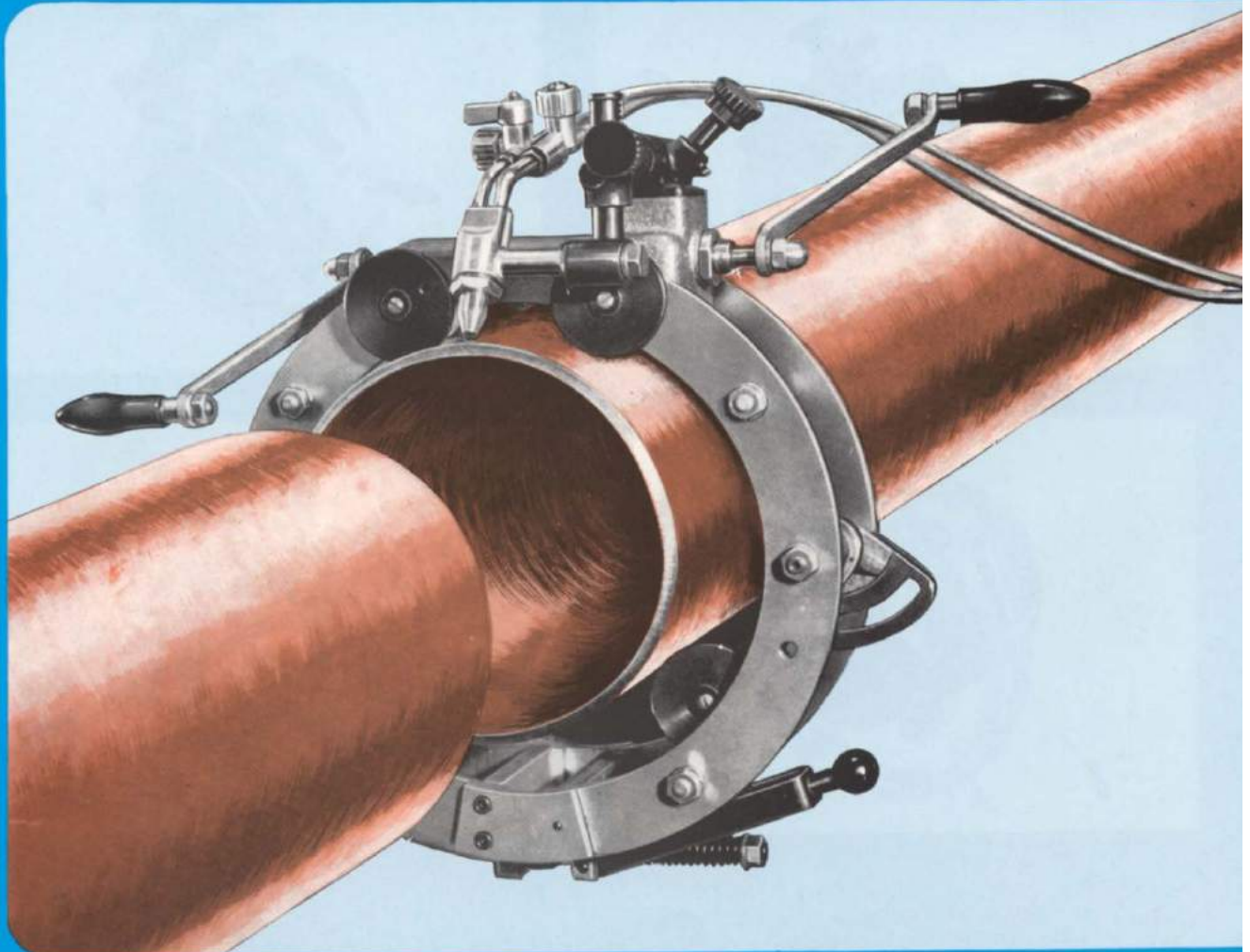
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Pipe cutting machines Range 70 up to 1500 mm.

ROBUST - PROVEN - ECONOMICALLY PRICED



- ▶ **Manually driven – motorised model available as option**
- ▶ **With Zinser block jets 3-30 mm (or 60 and 100 mm)**
- ▶ **For acetylene, propane, natural gas**
- ▶ **Really smooth cuts**

ZINSER PIPE CUTTING MACHINES

For simultaneous cutting and chamfering of steel pipes

The machines are available in different types according to their size.

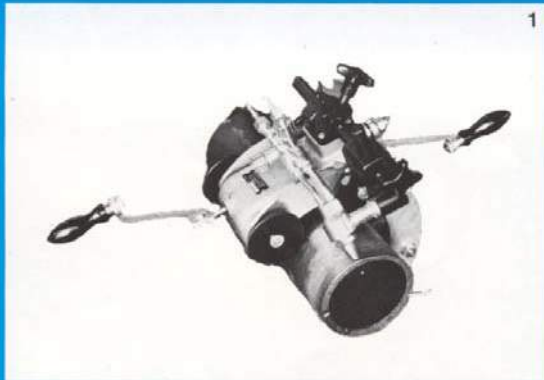
Size 0: Fixed ring halves and an adjustable pivot arm

Size 1 - 3: Two hinged ring halves

Size 4: With steel band guide, alternatively standard type with two hand cranks

All pipe cutting machines are designed so that they can be fitted onto an endless pipe. A quick-acting lock is provided for clamping the machine. The cutter carriage is driven by two hand cranks and four drive wheels. The hand cranks are fitted so that the operator need not change his position when the pipe is cut. In place of the manual drive the machine can also be fitted with an electrical drive with a continuously variable speed control (see figure 4).

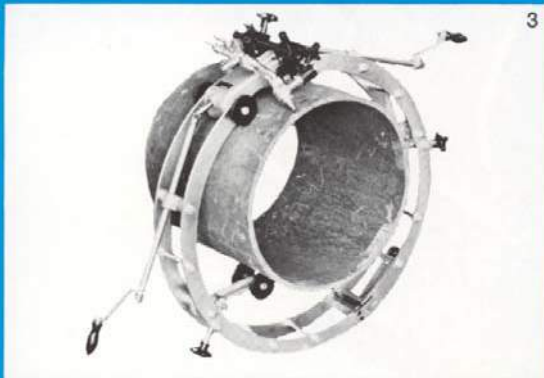
The cutter can be moved through $2 \times 45^\circ$. Height and lateral adjustments are also provided.



Size 0 for pipes of outside dia. 70-120 mm.



Size 1 for pipes with outside dia. 120-270 mm.
Size 2 for pipes with outside dia. 270-420 mm.



Size 3 for pipes with outside dia. 420-620 mm.



Size 4 with electric drive, for pipes with outside dia. 600-1000 mm.

Accessories:

Double burner cutter (it is thus possible to produce welding edge cuts for X- and V- seams).



Steel-plate box for storing the machine.

Steel bands for size 4:

Range 400 - 600 mm pipe dia.
600 - 1000 mm pipe dia.
800 - 1200 mm pipe dia.
1200 - 1500 mm pipe dia.
Spezial sizes on request.



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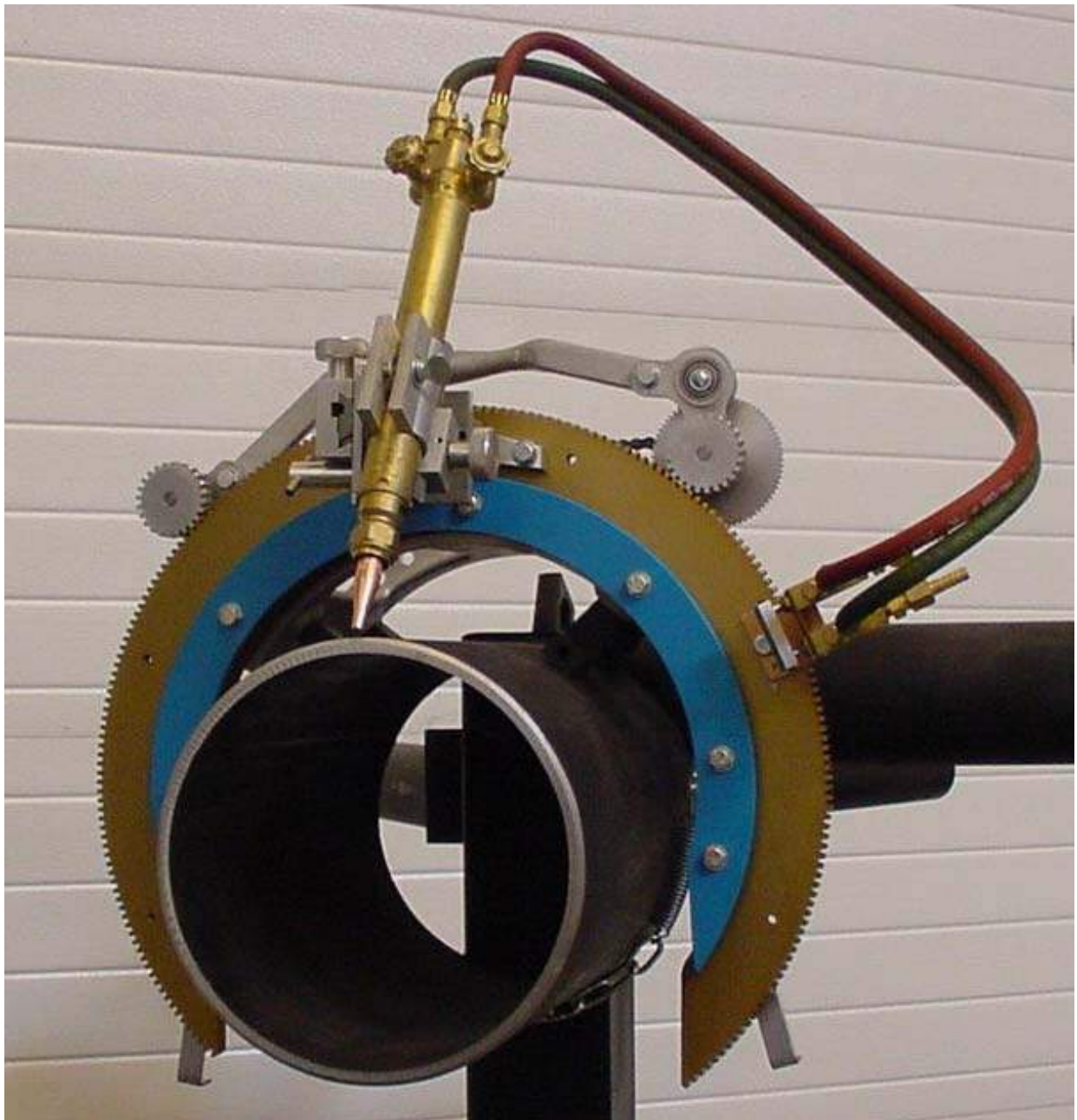
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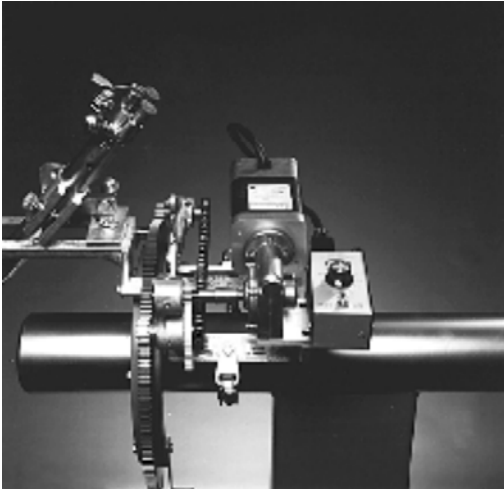
H&M

Pipe cutting and beveling machine

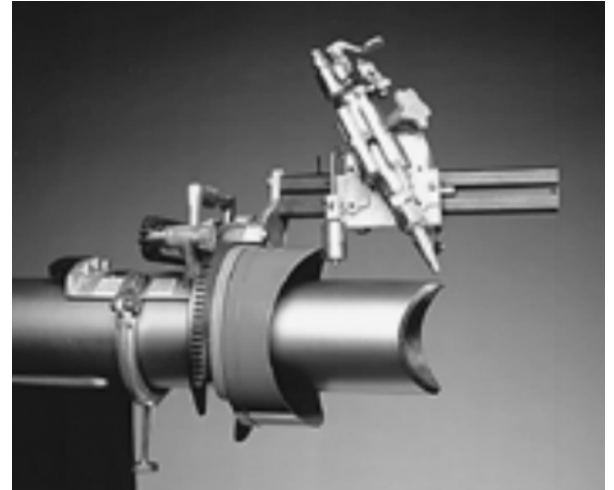
Cutting range 2 to 36"



The RING GEAR SYSTEM allows precise back-beveling operations without sacrificing the machine's integrity .
After this the grinding operations are MINIMAL.



The H & M Pipe cutting and beveling machines can be executed with an electric drive.



A special torch holder and templates for cutting special forms are available.

ADVANTAGES:

- quick mounting on the pipe.
- cutting and beveling in 1 operation.
- flame cutting with minimal after operation.
- torch holder is versatile adjustable.
- torch/pipe distance always the same with a special torch holder (option for out of round pipes).



Cutting ranges H&M cutting and beveling machines

<u>MODEL</u>	<u>STANDARD PIPE SIZES</u>	
Nr. 0	2 - 2,5 - 3 - 4"	(60,32 - 73,02 - 88,90 - 114,30 mm.)
Nr. 1	3 - 4 - 6 - 8"	(88,90 - 114,30 - 168,27 - 219,07 mm.)
Nr. 2	7 - 8 - 10 - 12"	(193,67 - 219,07 - 273,05 - 323,85 mm.)
Nr. 3	14 - 16 - 18 - 20"	(355,60 - 406,40 - 457,20 - 508,00 mm.)
Nr. 4	20 - 22 - 24 - 26"	(508,00 - 558,80 - 609,60 - 660,40 mm.)
Nr. 30	24 - 26 - 28 - 30"	(609,60 - 660,40 - 711,20 - 762,00 mm.)
Nr. 5	30 - 32 - 34 - 36"	(762,00 - 812,80 - 863,60 - 914,40 mm.)



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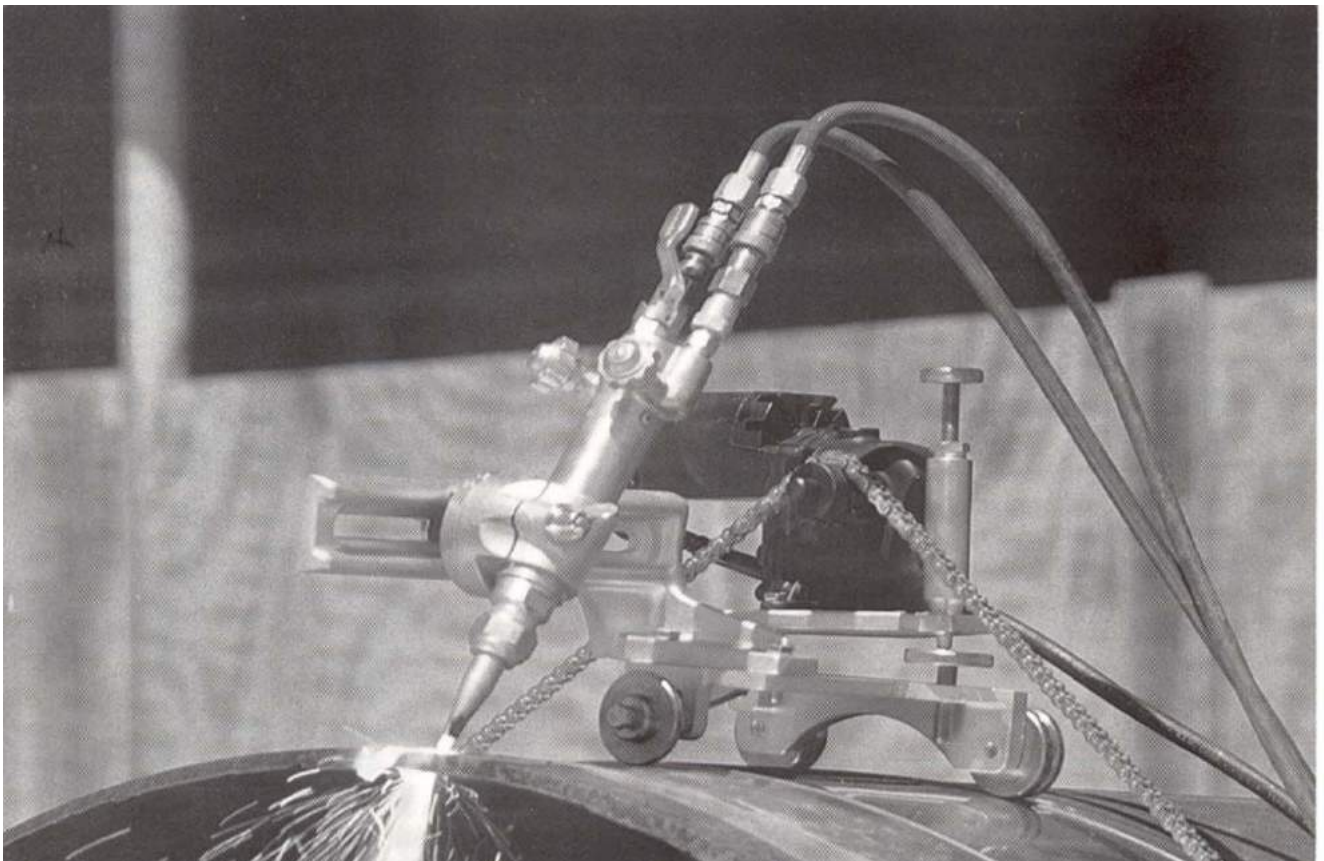
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H & M

motorized "BAND - TYPE"

PIPE CUTTING AND BEVELING MACHINE

cutting range 10" to 96"



The H&M motorized beveling head is constructed of cast aluminium. It is lightweight, compact design allows for easy one-man setup and operation. Seventeen different stainless steel bands provide a cutting range of 10" to 96" diameter pipe, plus special bands are available for cutting pipe up to 20 feet in diameter.

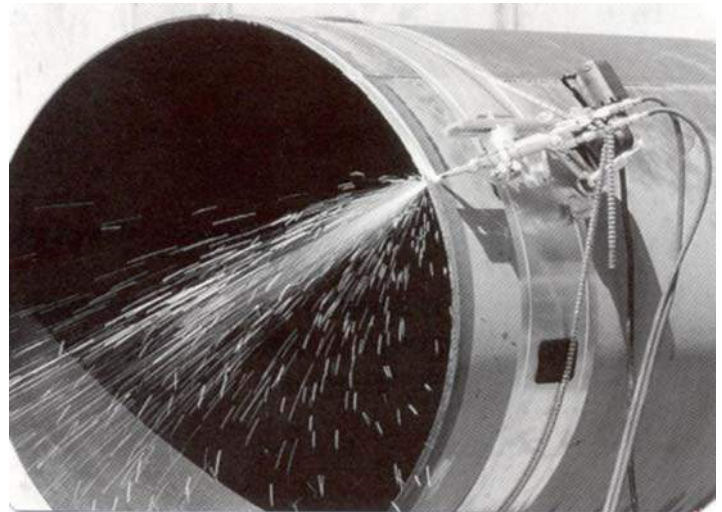
The H & M band-type pipe cutting and beveling machine is fast, accurate and versatile. A single operator can position the band and beveling machine head on 48" diameter pipe in approx. 5 minutes.

Each H & M stainless steel band overlaps numerous pipe sizes making the bands very economical:

- automatically compensates for over-sized or under-sized pipe
- unaffected by dope or coating on the pipe
- accuracy - overlapping squares up the band
- band conforms to out-of-round pipe

The H & M motorized beveling machine head incorporates a rugged, lightweight, cast aluminum chassis that offers the following features:

- portable (weighs only 9 kgs.)
- designed to work on all stainless steel bands
- equipped with a 110 volt AC motor
- variable speed control box with forward and reverse capabilities
- speed range of 2 IPM to 24 IPM
- plasma speeds (optional)
- 220 volt (optional)



BANDS

(each band includes a drive chain and a coupling)

Model	dia. inch	dia. mm.
BAND 14	10 - 14"	250 - 350 mm.
BAND 20	14 - 20"	350 - 500 mm.
BAND 26	20 - 26"	500 - 650 mm.
BAND 30	26 - 30"	650 - 750 mm.
BAND 36	30 - 36"	750 - 900 mm.
BAND 42	36 - 42"	900 - 1050 mm.
BAND 48	42 - 48"	1050 - 1200 mm.
BAND 56	48 - 56"	1200 - 1400 mm.
BAND 60	56 - 60"	1400 - 1500 mm.
BAND 64	60 - 64"	1500 - 1600 mm.
BAND 68	64 - 68"	1600 - 1700 mm.
BAND 72	68 - 72"	1700 - 1800 mm.
BAND 76	72 - 76"	1800 - 1900 mm.
BAND 80	76 - 80"	1900 - 2000 mm.
BAND 84	80 - 84"	2000 - 2100 mm.
BAND 90	84 - 90"	2100 - 2250 mm.
BAND 96	90 - 96"	2250 - 2400 mm.



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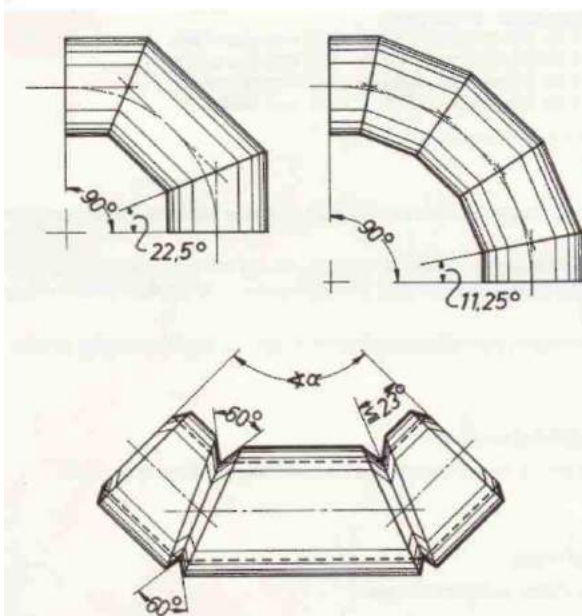
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RSG Pipe cutting machine

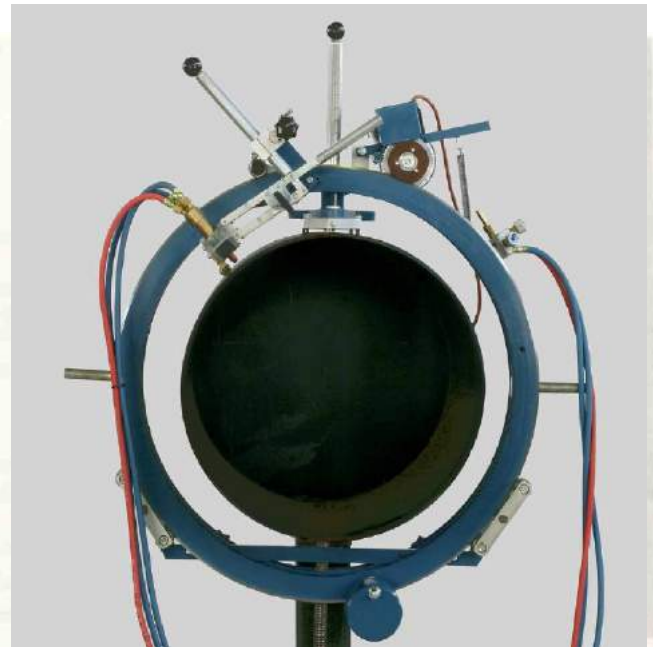
for bevel cuts up to $22,5^\circ$ and for cutting length with edge planing

RS Pipe cutting machine

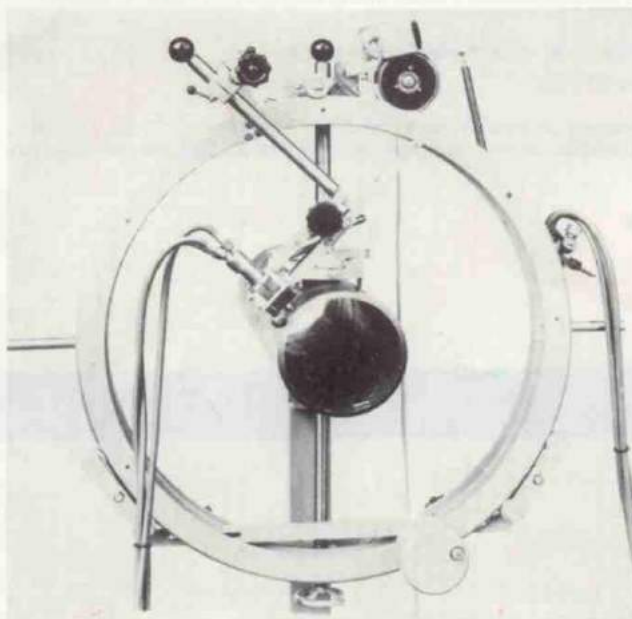
for cutting to length with edge planing with a high degree of accuracy



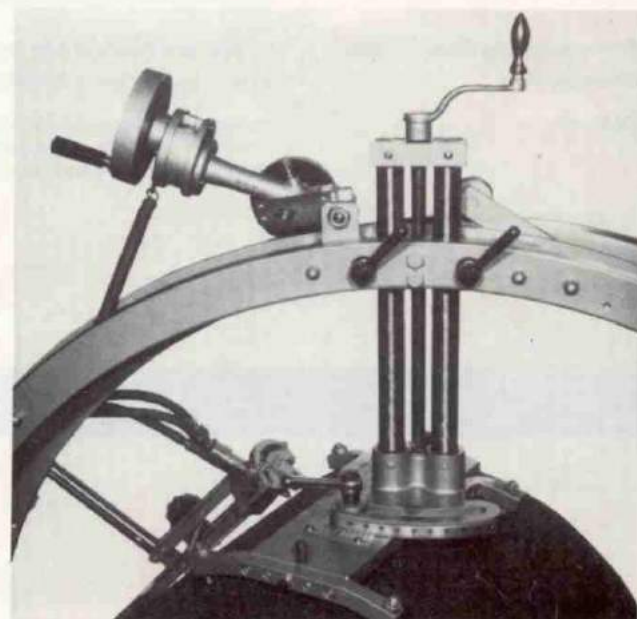
RSG Samples of applications



RSG 3 Manual driving mechanism



RSG Motor driving mechanism



RSG 3 Centering device for bevelling

ROTOFIX Pipe cutting machine RSG

for bevel cuts up to 22,5°

Standard sizes:

RSG 1 for pipes from 65 to 250 mm. diam.
RSG 2 for pipes from 200 to 600 mm. diam.
RSG 3 for pipes from 600 to 1000 mm. diam.
RSG 4 for pipes from 1000 to 1400 mm. diam.

Standard sizes, collapsible:

RSG-T-1 for pipes from 65 to 250 mm. diam.
RSG-T-2 for pipes from 200 to 600 mm. diam.
RSG-T-3 for pipes from 600 to 1000 mm. diam.

Special sizes on request.

ROTOFIX Pipe cutting machine RS

Standard sizes:

RS 1 for pipes from 50 to 250 mm. diam.
RS 2 for pipes from 120 to 600 mm. diam.
RS 3 for pipes from 500 to 1000 mm. diam.
RS 4 for pipes from 1000 to 1500 mm. diam.
RS 5 for pipes from 1300 to 1800 mm. diam.

Standard sizes, collapsible:

RS-T-1 for pipes from 50 to 250 mm. diam.
RS-T-2 for pipes from 120 to 600 mm. diam.
RS-T-3 for pipes from 500 to 1000 mm. diam.
RS-T-4 for pipes from 1000 to 1500 mm. diam.

Special sizes on request.

ROTOFIX Pipe cutting machines are designed for use in workshops and on construction sites. They are slipped on, the pipes or the collapsible version, snapped on the pipes and then set up.

During cutting, only the torch is moving around the pipe being fixed in it's ball race away. Both the machine with it's driving mechanism and the pipe remain fixed thus assuring precise cuts. The angle between the cutting plane and the pipe axis is exactly 90° (respectively is corresponds exactly to the pre-set bevel angle) avoiding the off-setting of the cutting joint during cutting.

Special features of the ROTOFIX are short set-up times, even when constantly changing pipe diameters have to be cut, and the quality of cuts, saving refinishing.

TECHNICAL DATA

Manual driving mechanism	:	consisting of complete slip-on unit operated by hand crank.
Electric driving mechanism	:	consisting of a complete slip-on driving unit with external switch box for controlling cutting speed and direction of rotation.
Voltage supply	:	220 V., 50 cycles (other voltages optional)
Cutting speed	:	150-170 mm./min. manually adjustable at all times
Torches	:	standard for oxygen-acetylene: LPG/natural gas or other fuel gasses
Cutting capacity	:	2 - 120 mm.
Support	:	special cutting support having lateral and height adjustment; possibility of adjustment of torch distance to pipe wall, the once set distance being maintained even if out-of-true or irregular pipe surfaces have to be cut
Straight cuts and edge-planing	:	straight and diagonal cuts (adjustable up to 30° on both sides) are feasible
Beveling	:	from 0° to 22,5° with ROTOFIX RSG and RSG-T
Optional	:	carriage allowing one-man-in-house service, even when using the larger ROTOFIX machines, without having to use lifting equipment, which will also allow for line production without the necessity to retract the machine from pipe to be cut.

Specifications are subject to change.



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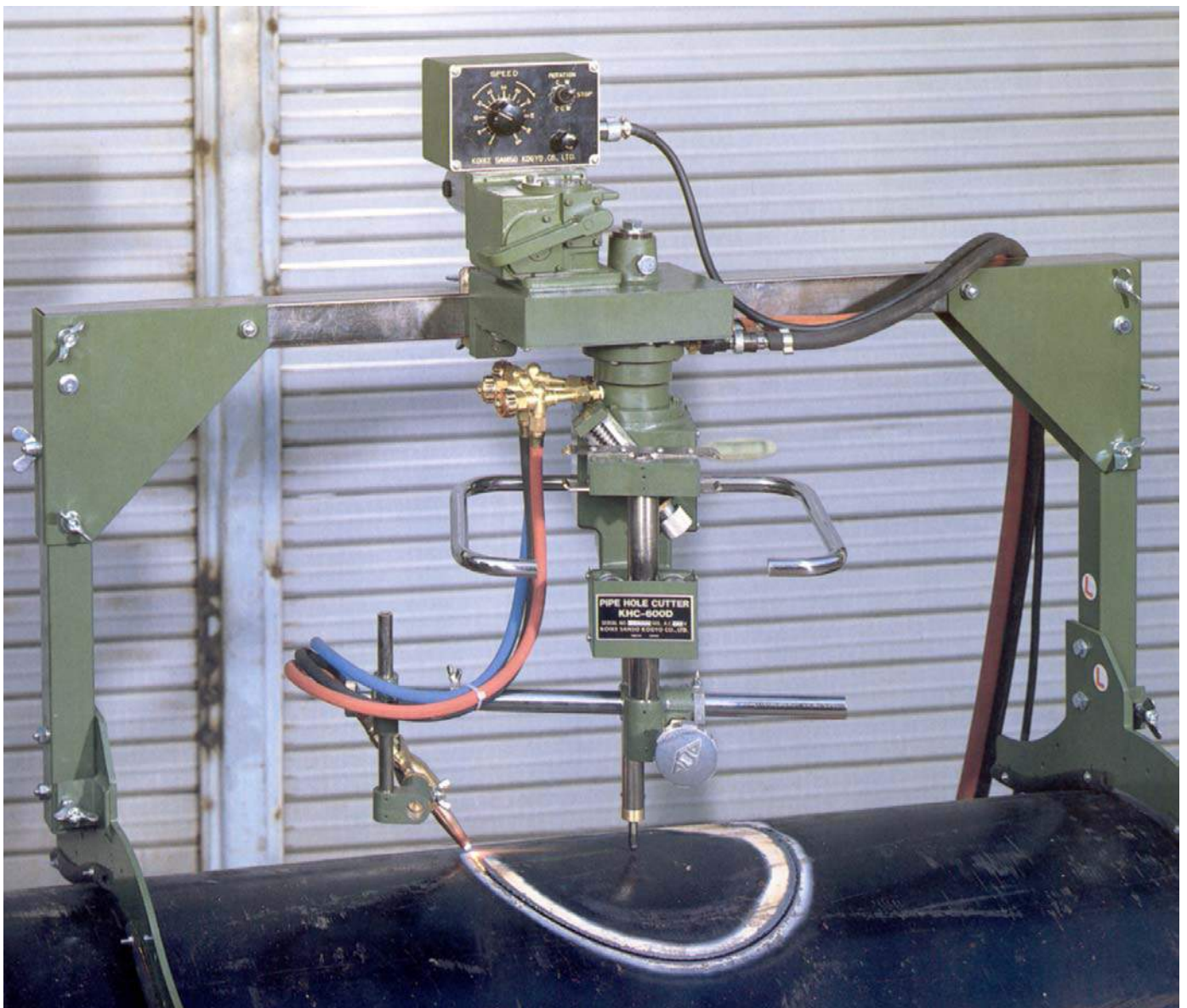
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PORTABLE AUTOMATIC PIPE HOLE CUTTING MACHINE

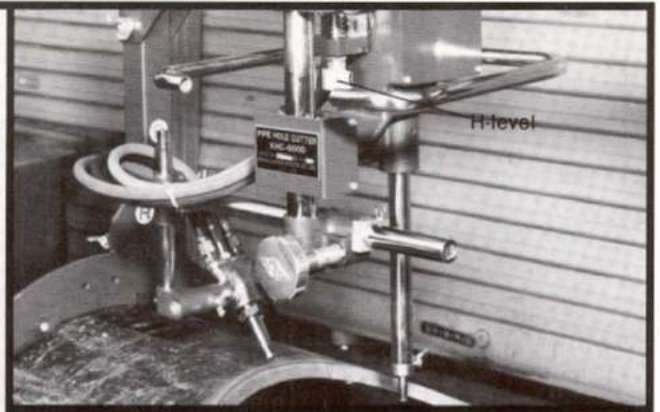
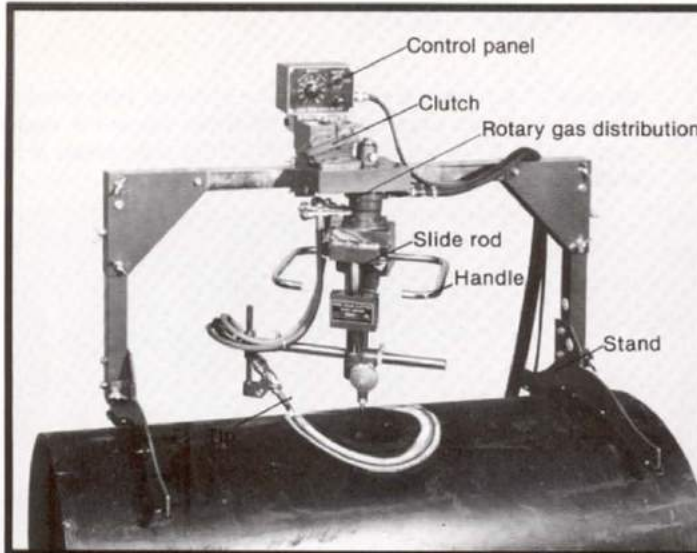
KHC-600D

A unique machine developed through Koike Advanced Technology and world wide experience. The KHC-600D features compact design, light weight and operating ease. Its main use is for high precision cutting of T-joint circles. Holes which cross the side of the pipe for pipe for piping systems, high pressure vessels and heat exchangers. KHC-600D can cut a vessel from the inside or outside. The KHC-600D user bonus is its ability to cut circles and bevel in flat plate.



PORTABLE AUTOMATIC PIPE HOLE CUTTING MACHINE

KHC-600D



H-LEVEL HANDLE

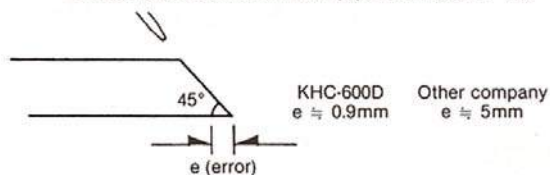
The torch automatically goes upward and downward along surface R by adjusting the tip height at 0° (upper position of the pipe) and 90° (pipe side), using the H-lever.

FEATURES

- (1) Use of the lever ensures easy setting of the tip height.
- (2) The clutch mechanism facilitates tip positioning.
- (3) The up/down interlock device employs a trigonometrical function generating mechanism to ensure higher bevel accuracy than the conventional crank mechanism.

(Example) Bevel: 45°

Branch pipe diameter/main pipe diameter = 1/3



- (4) Use of rotary gas distribution prevents the hose from becoming entangled.
- (5) Circular cutting on the plane is also possible.
- (6) Excellent portability is guaranteed by compact design and light weight.

MAIN SPECIFICATIONS

Effective cutting diameter	φ80 ~ φ600mm (3-1/8 ~ 23")
Vertical torch stroke	0 ~ 100mm (0 ~ 4")
Cutting thickness	5 ~ 50mm (1/4 ~ 2")
Cutting speed	0.12 ~ 1.2 rpm
Bevel angle	0° ~ 45°
Ratio between branch and main pipe diameters	1:2 or more
Main pipe diameter	800mm or more (for standard stand)
Motor	15W, 5,000rpm DC shunt motor
Speed control	SCR control
Machine dimensions	760mm(high) x 1050mm(long) x 500mm (wide) (30 x 41 x 19")
Weight	26kg (57.2 lbs)

OPTIONS

● Small-diameter pipe fixture

This is to assist the function of the standard stand to firmly hold pipes with the a diameter from 250 to 800mm.

● Stand for Overhanging Workpiece

This stand holds workpieces on one end when cutting the pipe close to the end position.



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BAND / CRAWLER TYPE PIPE BEVELING MACHINES



Hand- or electric powered band crawler type pipe-cutting machine, available for pipe sizes 6" and larger.

Bands standard available till 60" pipe (1524mm).

Features:

- Ideal for cutting in tight spaces, (only ca. 15 cm. space needed)
- Out-of-Round pipe no problem.
- Made of stainless steel.
- Also available for special pipe dimensions / cemented pipe etc.
- Hand-operated with flexible drive with lengths from 2,7 and 4,2 mtr.



Accessories and options

See other side



Optional the machine can be supplied with an electronic motor with voltages from 220V A.C. / 110V A.C. or 90V D.C.

This motor is also useable for PLASMA cutting.



The machine can also be supplied with a "Right Angle Drive Kit" . The swivel feature on this drive shaft facilitates work in tight areas.

Further options:

- Angle - Adjustable Torch Holder with wing bolt tightening.
- Double Cut Torch Holder for cutting and bevelling at the same time.
- Carrying case
- Cutting tips (gas type and wall thickness to be given with order)



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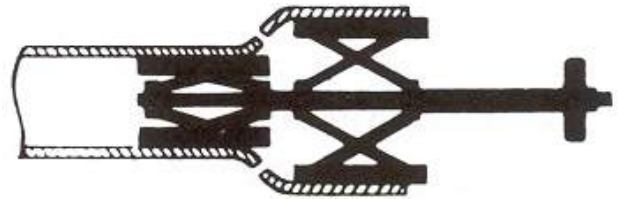
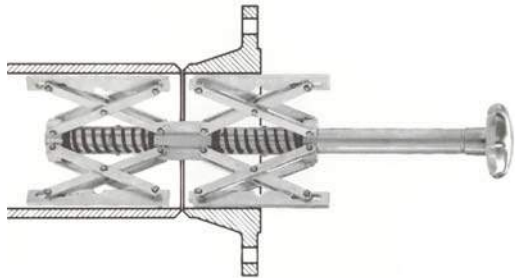
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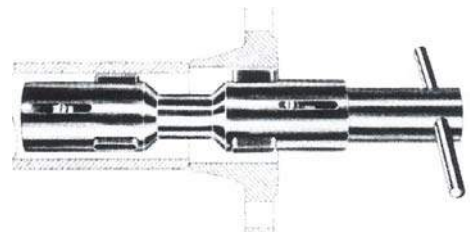
Centromat clamp- and centering tools



The Centromat tools are designed for clamping and centering a flange to a pipe (also for slip-on flanges). The tools are available in the range from 16 to 950 mm. I.D. and made of steel or stainless steel. It does not matter when the two internal diameters are different (see picture right at the top) the tool will always align the both pieces.

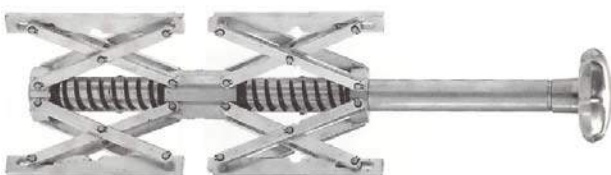
Type 05, 04, 03, 02, 01, 0 and 00.

In the range 16 up to 64 mm. I.D. there are 7 pcs. tools available. These tools are executed with splines and 1 knob for operating the splines. With this knob both sets of splines are operated.



Type 1 up to 5

In the range 54 up to 940 mm. there are 5 pcs. tools available. These tools are executed with clamping shears. Type A is executed with 1 knob for operating both sets of clamping shears. Type B is executed with 2 knobs for separate operating of both sets of shears. The advantage of type B is that you can first clamp the tool into the pipe. After clamping the tool into the pipe you can use both hands to position the flange to the pipe and clamp the second set of shears. The type B is recommended for large size flanges.



Type A 1 knob



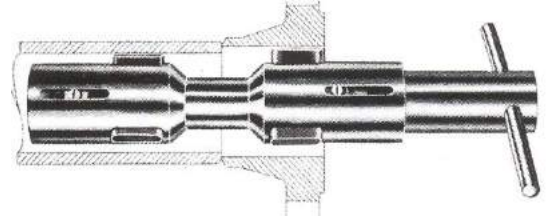
Type B 2 knobs

knob 1

knob 2

Type 05 up to 00

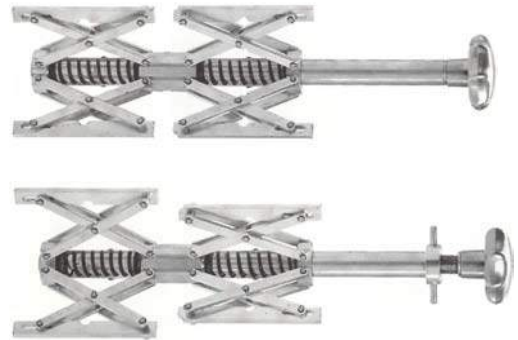
Type 05	range	15 - 19 mm.
Type 04	range	16 - 20 mm.
Type 03	range	19 - 25 mm.
Type 02	range	24 - 32 mm.
Type 01	range	31 - 40 mm.
Type 0	range	38 - 52 mm.
Type 00	range	51 - 64 mm.



Type 1 up to 5.

In A (1 knob) or B (2 knobs) execution

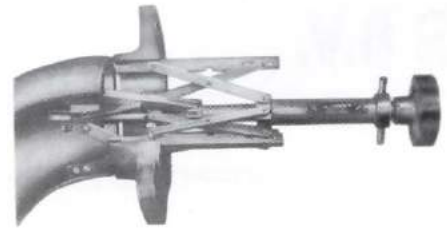
Type 1A	range	54 - 140 mm.
Type 1B	range	54 - 140 mm.
Type 2A	range	85 - 220 mm.
Type 2B	range	85 - 220 mm.
Type 3A	range	120 - 350 mm.
Type 3B	range	120 - 350 mm.
Type 4B	range	180 - 520 mm.
Type 5B	range	400 - 940 mm.



Type 1 up to 4 for flange/elbow connections

(only for high pressure elbows)

Type 1C	range	54 - 115 mm.
Type 2C	range	85 - 195 mm.
Type 3C	range	120 - 315 mm.
Type 4C	range	180 - 520 mm.



Centromat swivel arm

The swivel arm is in combination with a grinding machine to use for grinding bevels to pipes

Type III :

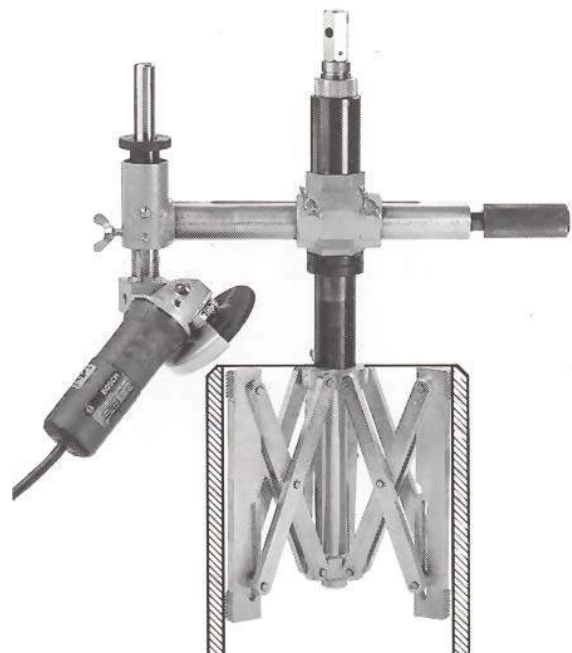
Internal pipe diameter	: 120 - 300 mm.
Grinding diameter	: max. 700 mm.

Type IV :

Internal pipe diameter	: 160 - 520 mm.
Grinding diameter	: max. 800 mm.

Type V :

Internal pipe diameter	: 350 - 940 mm.
Grinding diameter	: max. 1100 mm.





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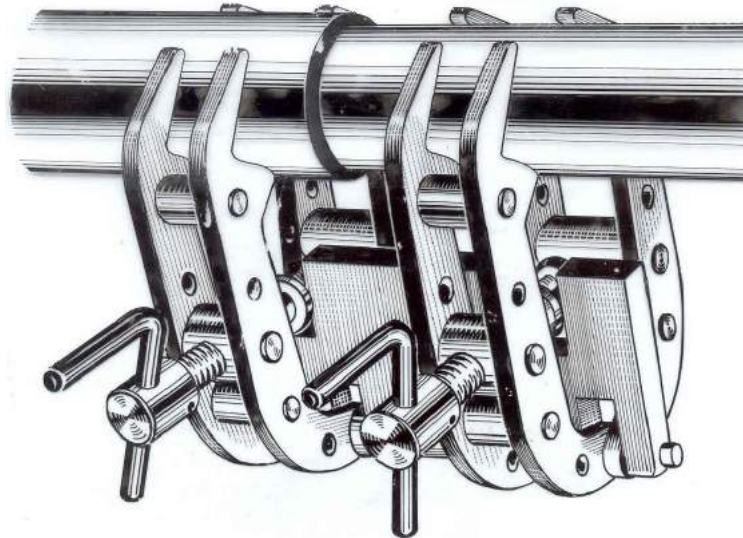
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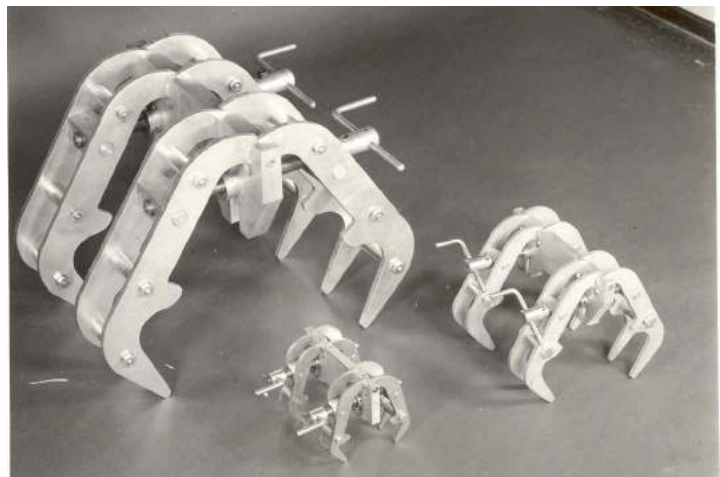
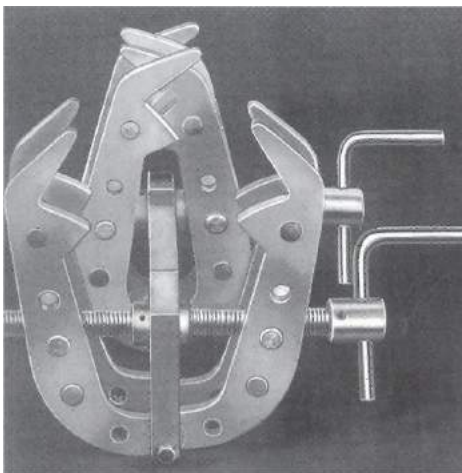
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Centromat external centering tools

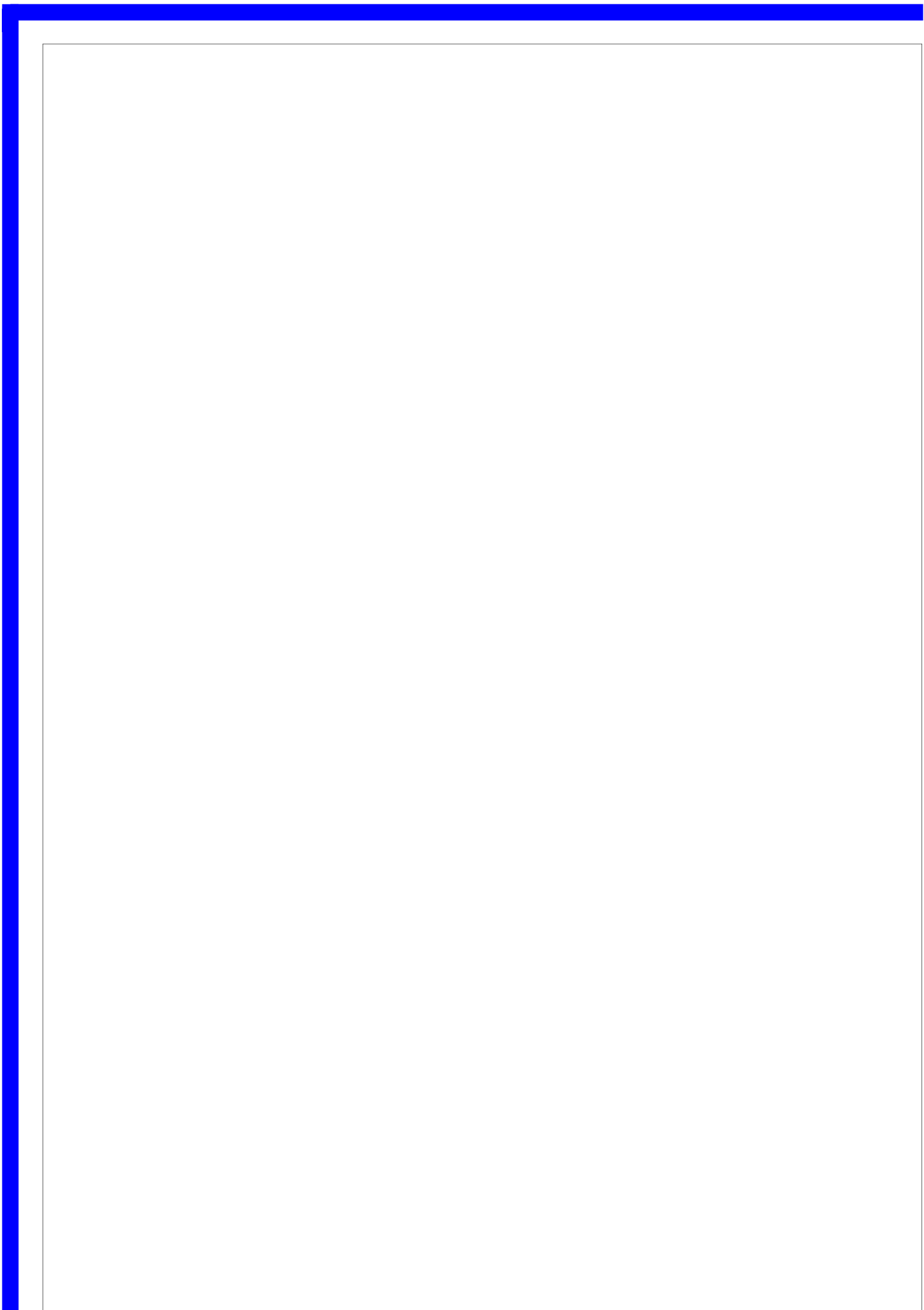


The CENTROMAT external centering tools are ideal tools for clamping and centering pipe/pipe connections. If there is a difference in pipe diameters and these diameters are within the minimum and maximum range of our equipment, the differences are evenly divided over the circumference so that the center lines are always in one straight line.



The Centromat external centering tools are deliverable in three measure ranges :

Type	Min. O.D.	Max. O.D.	Weight
M	10 mm.	70 mm.	3 kg.
N	40 mm.	140 mm.	6 kg.
P	75 mm.	330 mm.	22 kg.





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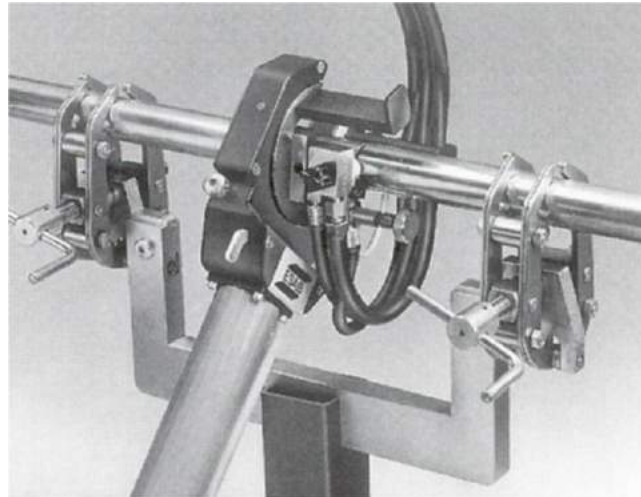
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FAX 31 - 24 - 358 70 79

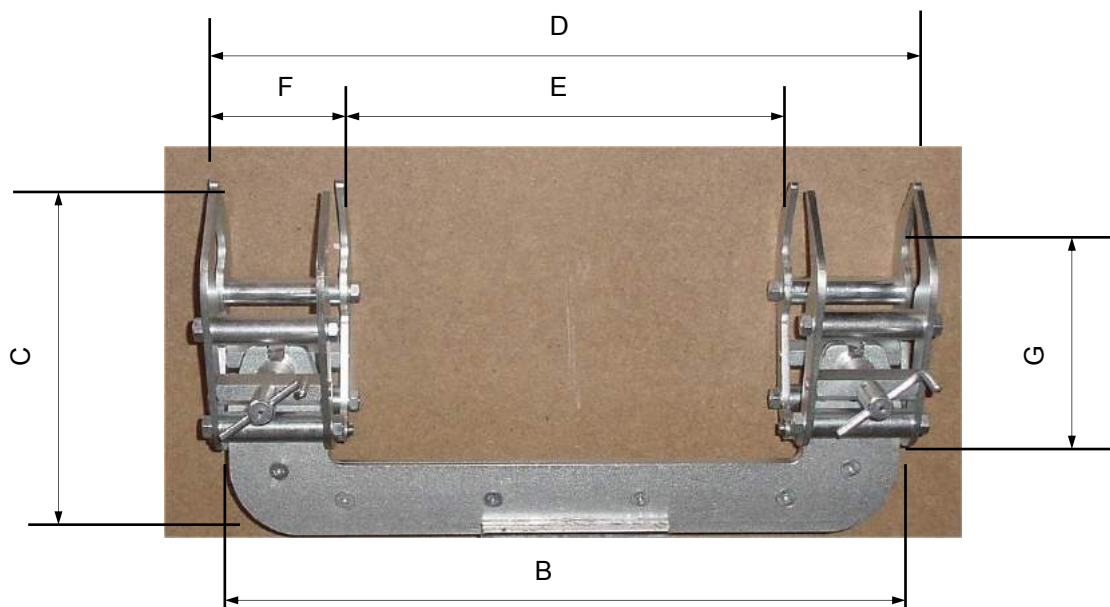
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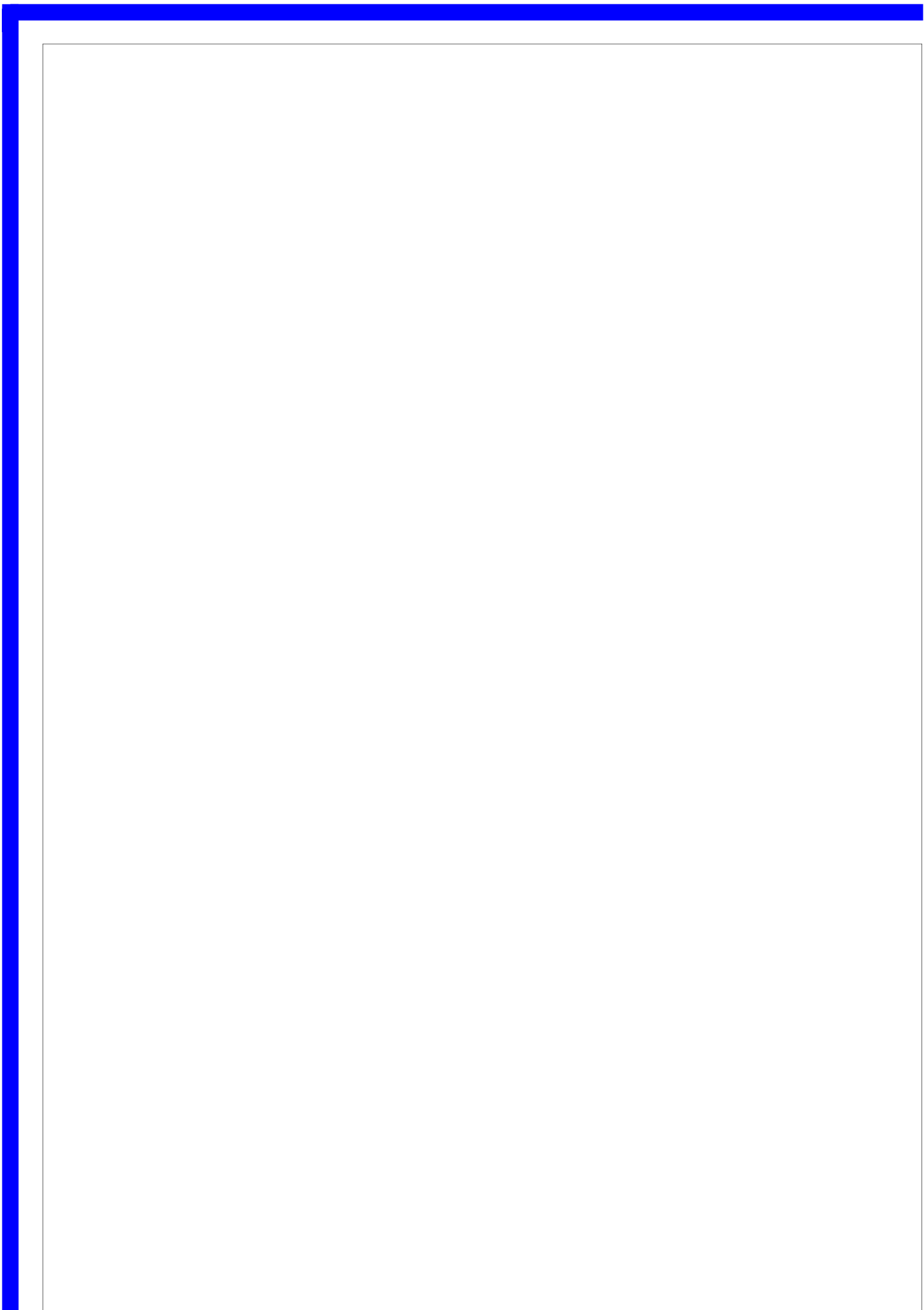
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Centromat Clamping- and Centering Tool Type Orbital



Type	Nr. 1	Nr. 2	Nr. 3	Nr. 4
Clamping size	6 - 50 mm.	10 - 70 mm.	25 - 130 mm.	75 - 330 mm.
Size B	210 mm.	400 mm.	590 mm.	720 mm.
Size C	165 mm.	245 mm.	290 mm.	550 mm.
Size D	210 mm.	400 mm.	570 mm.	720 mm.
Size E	80 mm.	220 mm.	340 mm.	340 mm.
Size F	55 mm.	70 mm.	106 mm.	168 mm.
Size G	65 mm.	170 mm.	170 mm.	340 mm.
Weight	5,7 kg.	5,5 kg.	14 kg.	41 kg.







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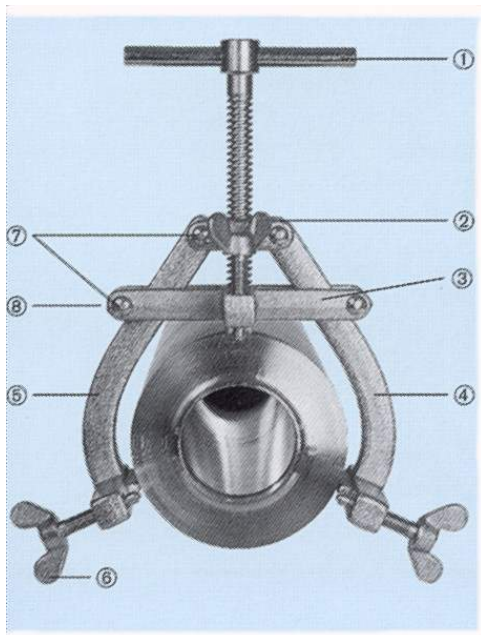
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JA-pipe welding clamps

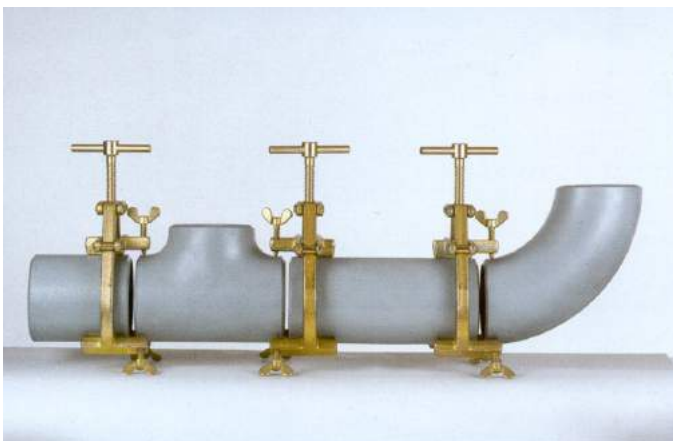
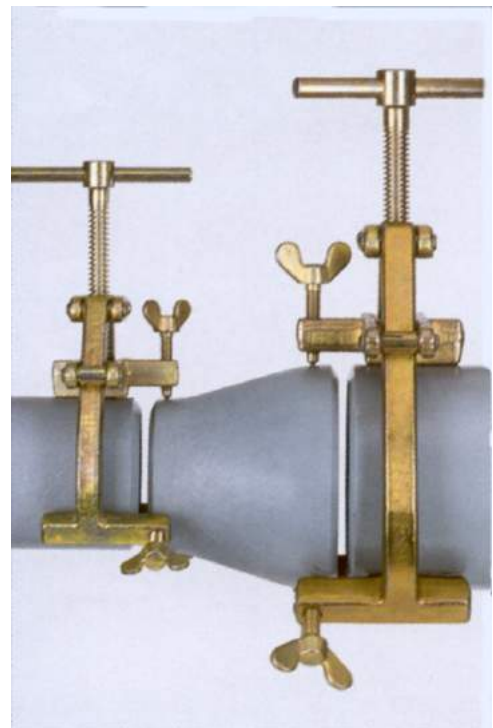


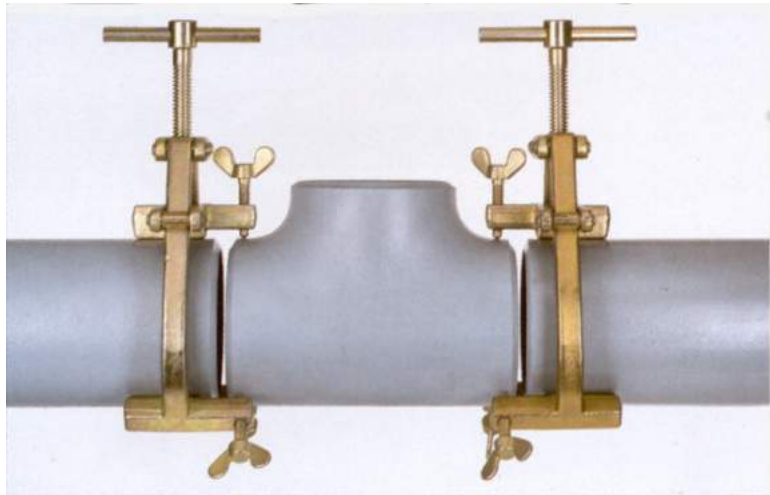
1. Housing screw
2. H-clamp
3. Yoke
4. Arm (right)
5. Arm (left)
6. Wing bolt with ball bearing
7. Rivet
8. Roller

The JA PIPE WELDING CLAMPS help to save time, while at the same time the working security will be advanced considerably.

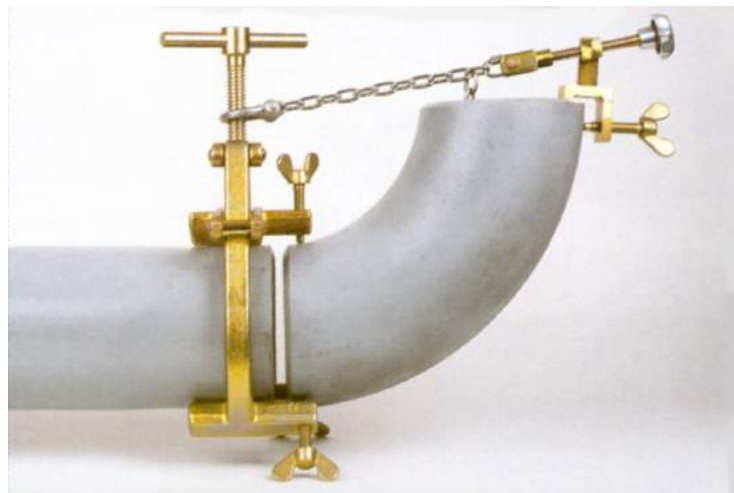
As of the precise micro adjustment device, a high extent of quality can be reached. All pieces are steel (electroplated) or stainless steel.

The assembly of pipe systems can be practised by only one pipefitter.





TYPE	JA 1/2" - 3"	JA 1" - 3"	JA 2" - 5"	JA 4" - 7"	JA 5" - 9"	JA 10" - 14"
Nom. clamping	12 - 90 mm.	25 - 90 mm.	50 -150 mm.	90 - 190 mm.	125 - 225 mm.	225 - 370 mm.
Weight	1,16 kg.	1,3 kg.	3 kg.	3,5 kg.	7 kg.	9 kg.



Option: Holding device + 1 mtr. chain



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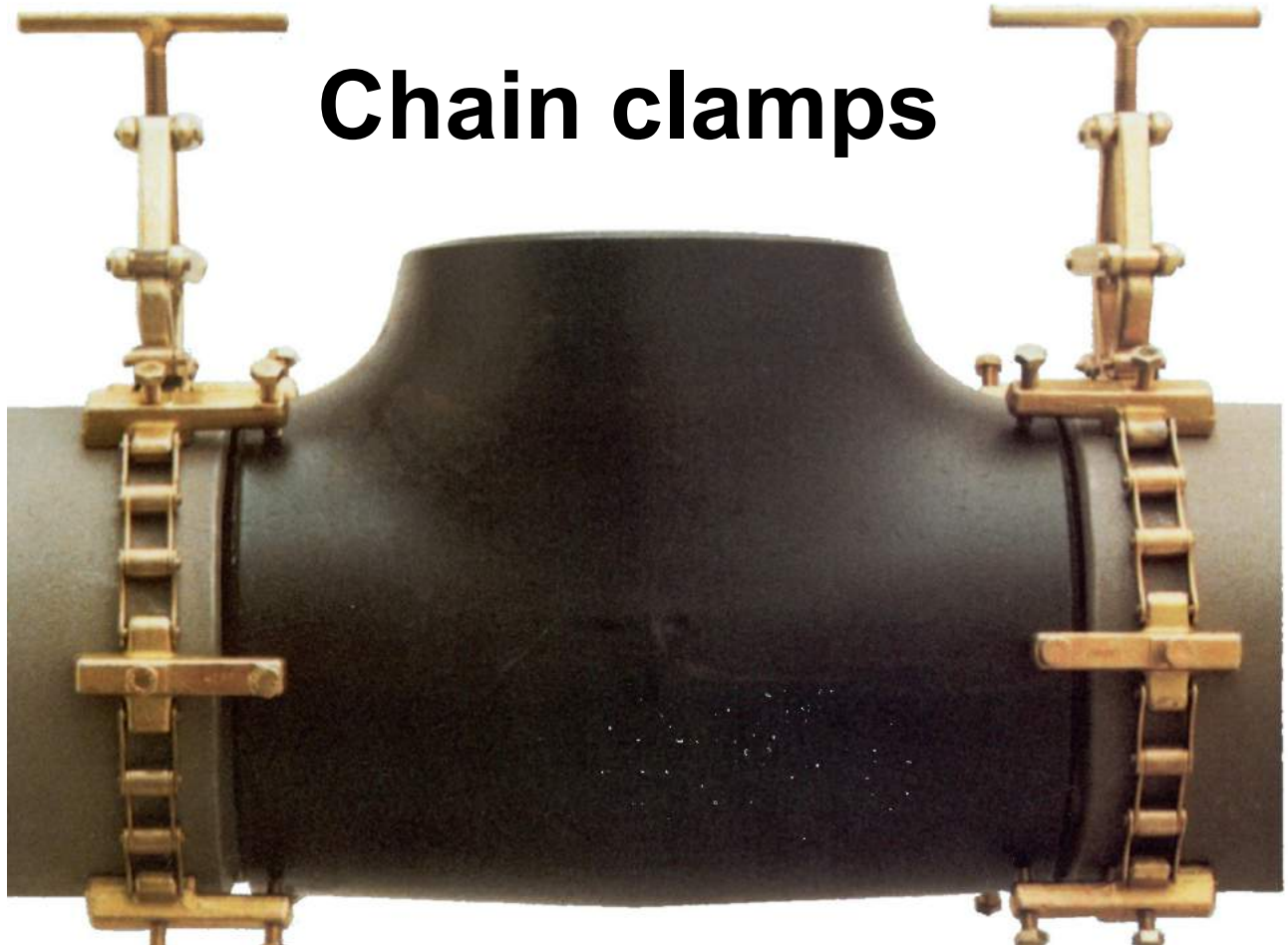
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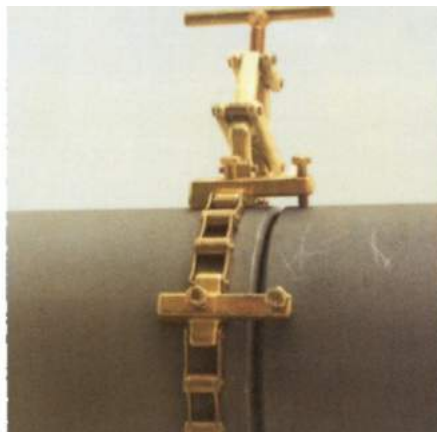
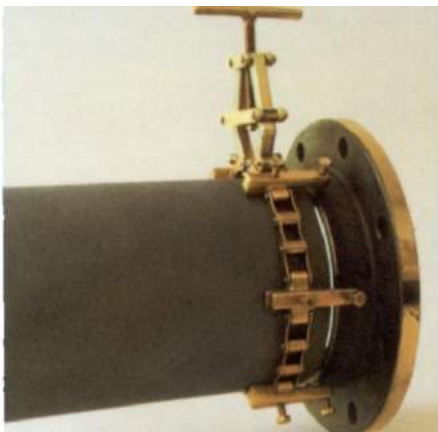


Chain clamps

Flexible chainclamps usable from DN 150. Also suitable for pipe/flange connections.

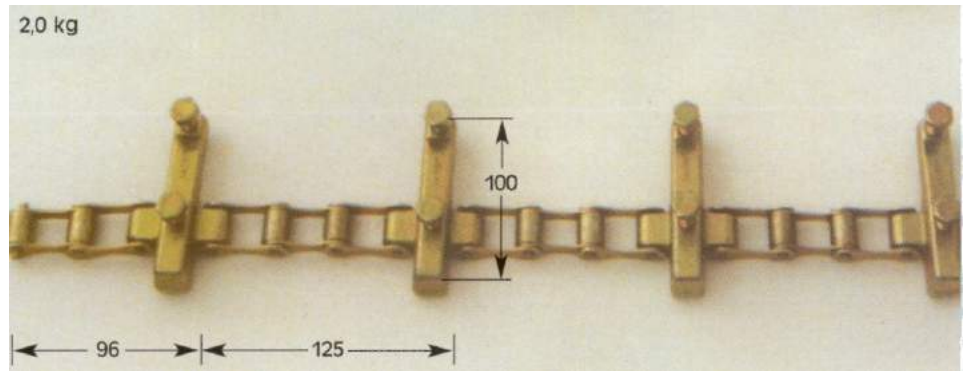
Deliverable in steel, stainless steel, single, double, light, medium and heavy execution.

Through the hook-system it is possible to clamp several pipesizes with 1 chain clamp, without dismounting chainparts.

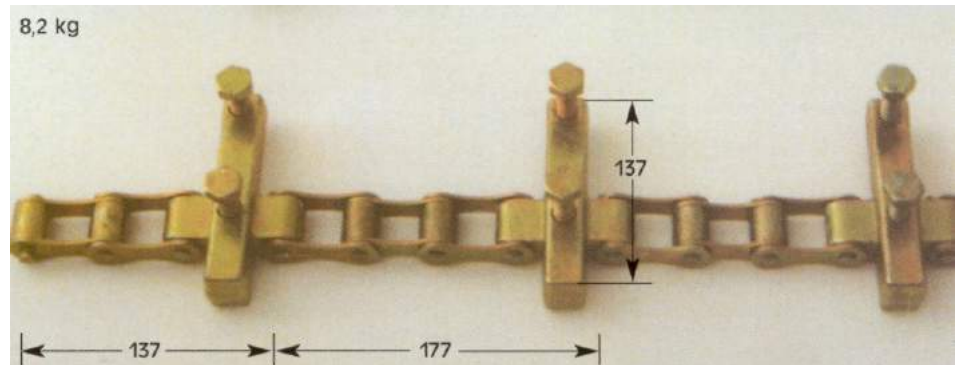


Type 150

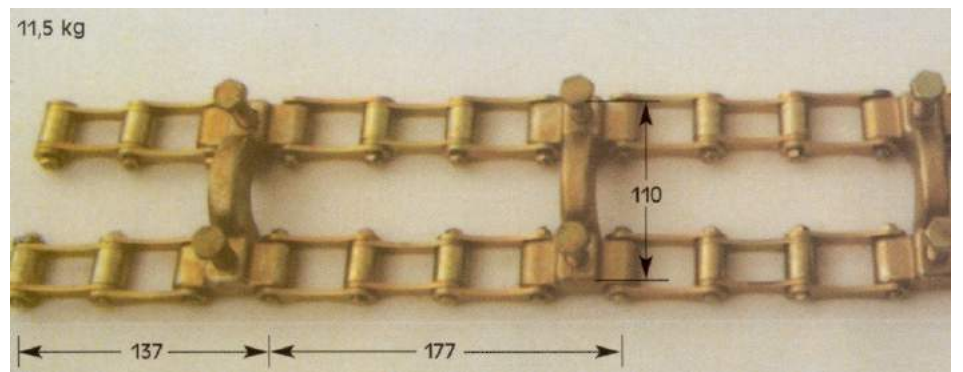
Light execution, normal steel or stainless steel. Standard length 650 mm. with 5 clamping points. Usable from DN 150.

**Type 200**

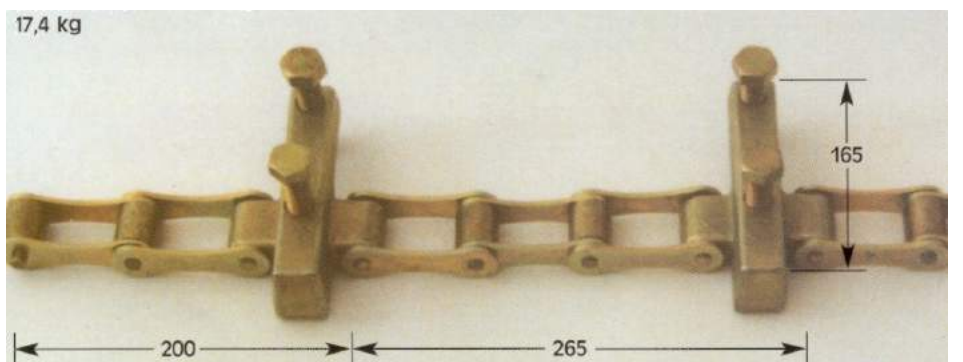
Medium heavy execution, normal steel or st. steel. Standard length 1275 mm. with 7 clamping points. Usable from DN 200.

**Type D200**

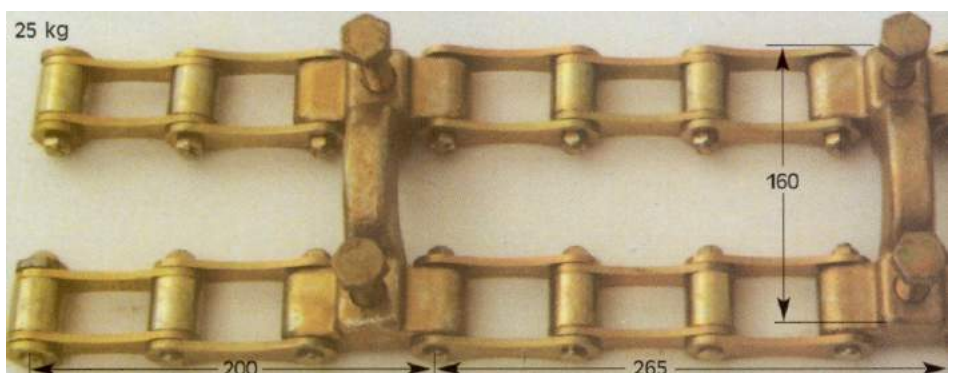
Medium heavy double execution, normal steel or stainless steel. Standard length 1275 mm. with 7 clamping points. Usable from DN 200.

**Type 300**

Heavy execution, normal steel or stainless steel. Standard length 1920 mm. with 7 clamping points. Usable from DN 300.

**Type D300**

Heavy double execution, normal steel or stainless steel. Standard length 1920 mm. with 7 clamping points. Usable from DN 300.





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JA chain clamp data form

Chain 150 C or 150 E incl. turnbuckle. Standard length 650 mm. = 5 extension chains				
Pipe size	DN	Pipe O.D. in mm.	Extension chain + turn-buckle	Weight kg.
6	150	168,3	4	2,6
8	200	219,1	6	3,4
10	250	273	7	3,8
12	300	323,9	8	4,2
14	350	355,6	9	4,6
16	400	406,4	11	5,4

Chain 200 C or 200 E incl. turnbuckle. Standard length 1275 mm. = 7 extension chains				
Pipesize	DN	Pipe O.D. in mm.	Extension chain + turn-buckle	Weight kg.
8	200	219,1	4	6,8
10	250	273	5	7,9
12	300	323,9	6	9,4
14	350	355,6	6	9,6
16	400	406,4	7	10,4
20	500	508	9	12,8
24	600	609,6	11	15,1

Chain D200 C or D200 E incl. turnbuckle. Standard length 1275 mm. = 7 extension chains				
Pipesize	DN	Pipe O.D. in mm.	Extension chain + turn-buckle	Weight
12	300	323,9	6	19,9
14	350	355,6	6	19,9
16	400	406,4	7	21,5
20	500	508	9	24,8
24	600	609,6	11	28,1
28	700	711,2	13	29,7
32	800	812,8	14	33
36	900	914,4	16	36,3
40	1000	1016	18	39,6
44	1100	1120	19	41,2
48	1200	1220	21	44,5
52	1300	1320	23	47,8
56	1400	1420	25	51,1
60	1500	1520	26	52,7

SOS

Chain 300 C or 300 E incl. turnbuckle. Standard length 1920 mm. = 7 extension chains				
Pipesize	DN	Pipe O.D. in mm.	Extension chain + turn-	Weight kg.
12	300	323,9	4	14,2
14	350	355,6	4	14,2
16	400	406,4	5	16,7
20	500	508	6	19,2
24	600	609,6	7	21,7
28	700	711,2	9	26,7
32	800	812,8	10	29,2
36	900	914,4	11	31,7
40	1000	1016	12	34,1

Chain D300 C or D300 E incl. turnbuckle. Standard length 1920 mm. = 7 extension chains				
Pipe size	DN	Pipe O.D. in mm.	Extension chain + turn-	Weight kg.
12	300	323,9	4	35,8
14	350	355,6	4	35,9
16	400	406,4	5	39,4
20	500	508	6	42,9
24	600	609,6	7	46,5
28	700	711,2	9	53,6
32	800	812,8	10	57,2
36	900	914,4	11	60,7
40	1000	1016	12	64,3
44	1100	1120	13	67,9
48	1200	1220	15	74,5
52	1300	1320	16	78,6
56	1400	1420	17	82,2
60	1500	1520	18	85,8
63	1600	1620	20	92,9
70	1800	1820	22	100,0
80	2000	2020	25	103,8



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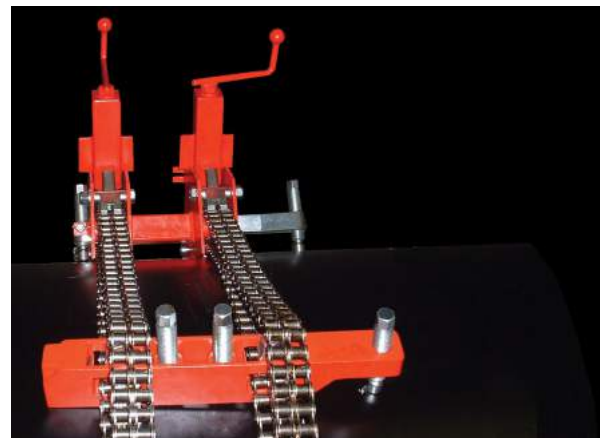
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WCC - CHAIN CLAMPS

Single- and double chain

In STEEL and STAINLESS STEEL



The WCC chain clamps have the strength to align and reform out-of-round pipes up to Schedule 40, are lightweight in construction. Aligning pipes over Schedule 40 is no problem. All jack bars are supplied with double screw jacks.

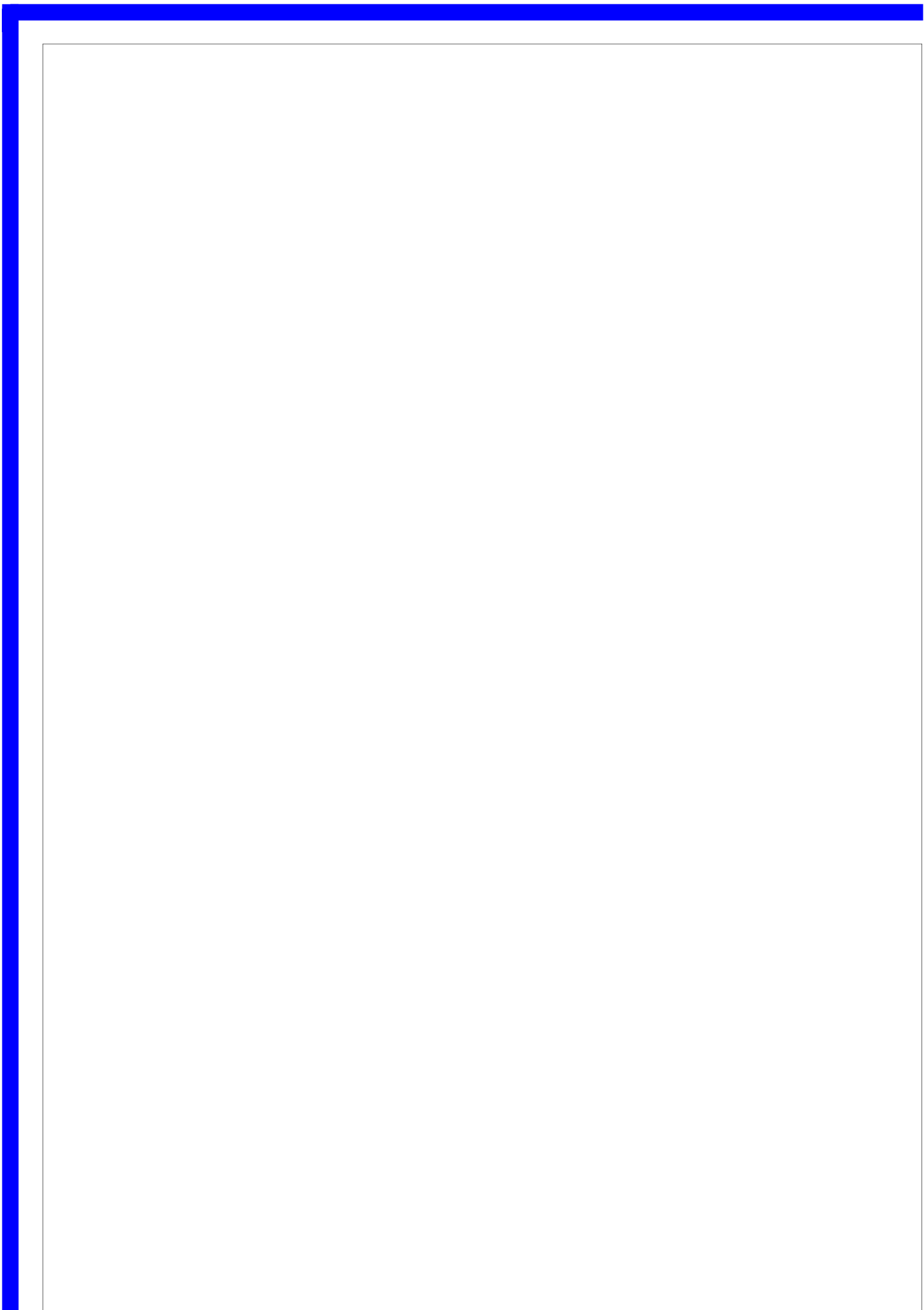
All clamps are zinc plated and powder coated, red for carbon steel and green for stainless steel.

The double chain clamp is designed for aligning and reforming of pipes and vessels up to some 6 metres, up to Schedule 80. Only aligning can be done with heavier pipes. Event. a torque wrench for the chain can be supplied to avoid overloading of the chain.

The double chain clamp can be delivered in standard sizes like diameter ranges of 10" - 36" / 10" - 48" / 10" - 54" / 10" - 60" / 10" - 72" / 10" - 84" / 10" - 96" and further on demand

Details of the single chain clamp:

CODE	RANGE	Reforms pipe to Schedule	Aligns pipe to Schedule	Shipping weight
WCC - 180	1" - 8"	40	80	15 Kgs.
WCC - 180 - SS	1" - 8"	40	80	15 Kgs.
WCC - 620	4" - 20"	40	80	19 Kgs.
WCC - 620 - SS	4" - 20"	40	80	19 Kgs.
WCC - 1036	10" - 36"	40	80	42 Kgs.
WCC - 1036 - SS	10" - 36"	40	80	42 Kgs.
WCC - 1054	10" - 54"	40	80	52 Kgs.
WCC - 1054 - SS	10" - 54"	40	80	52 Kgs.





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RIM and ULTRA RIM clamps

PIPE ADJUSTING- and REFORMING CLAMPS

for Pipes with diameters 4" - 72"+ standard



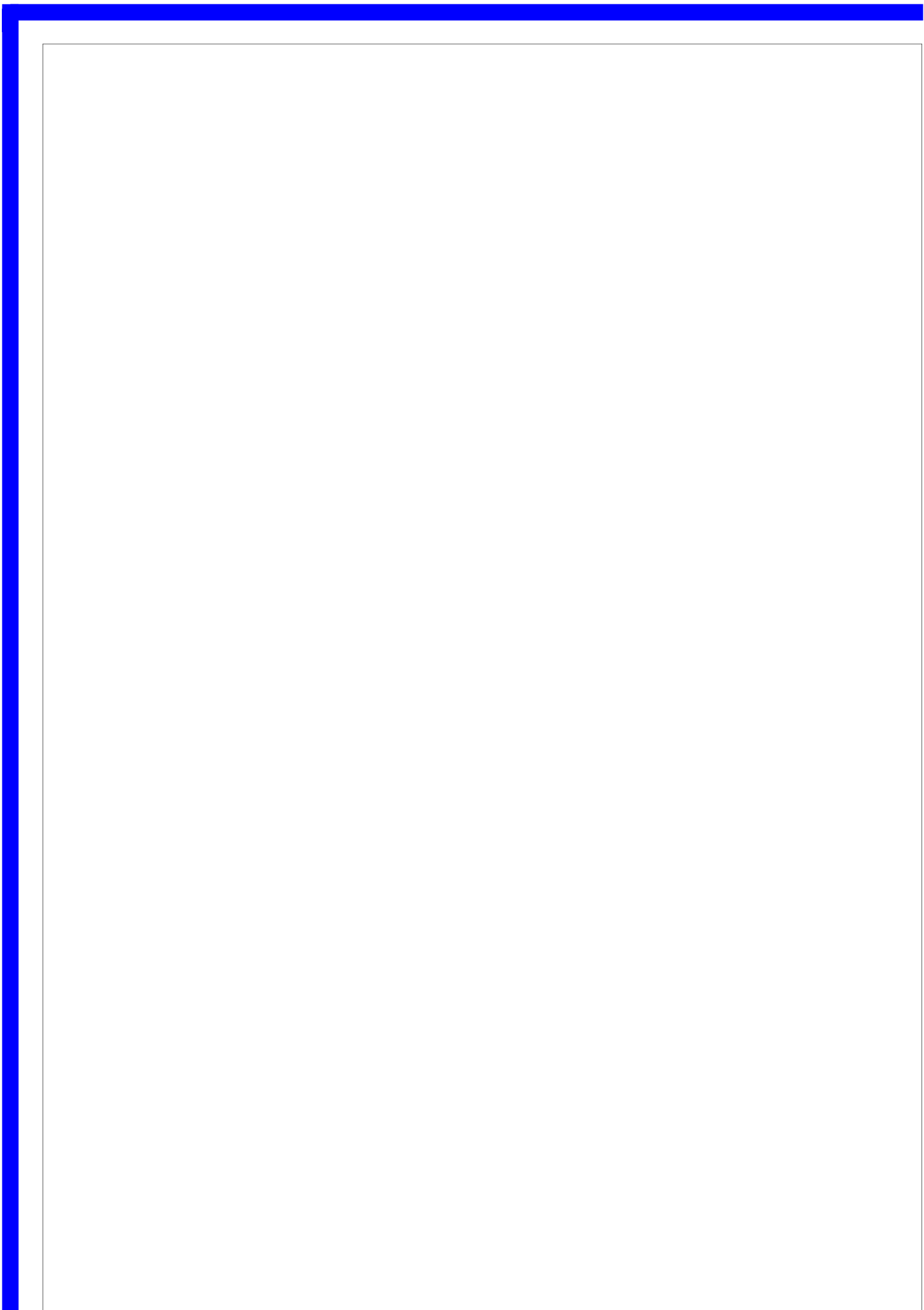
The RIM and ULTRA RIM Clamp series are designed to take on some of the toughest reforming jobs in the industry. These clamps make easy work of aligning and reforming. The standard RIM clamp is capable of reforming X45 - Sched. 80 with out-of-round conditions up to 50 mm. (depending of the pipe diameter).

The ULTRA RIM Clamp readily reforms high tensile strength pipe X-80 and above with up to 25 mm. wall thickness and out-of-round conditions up to some 55 mm. (dependent of the diameter). For versatility and strength, the RIM Clamp or ULTRA RIM Clamp is your choice

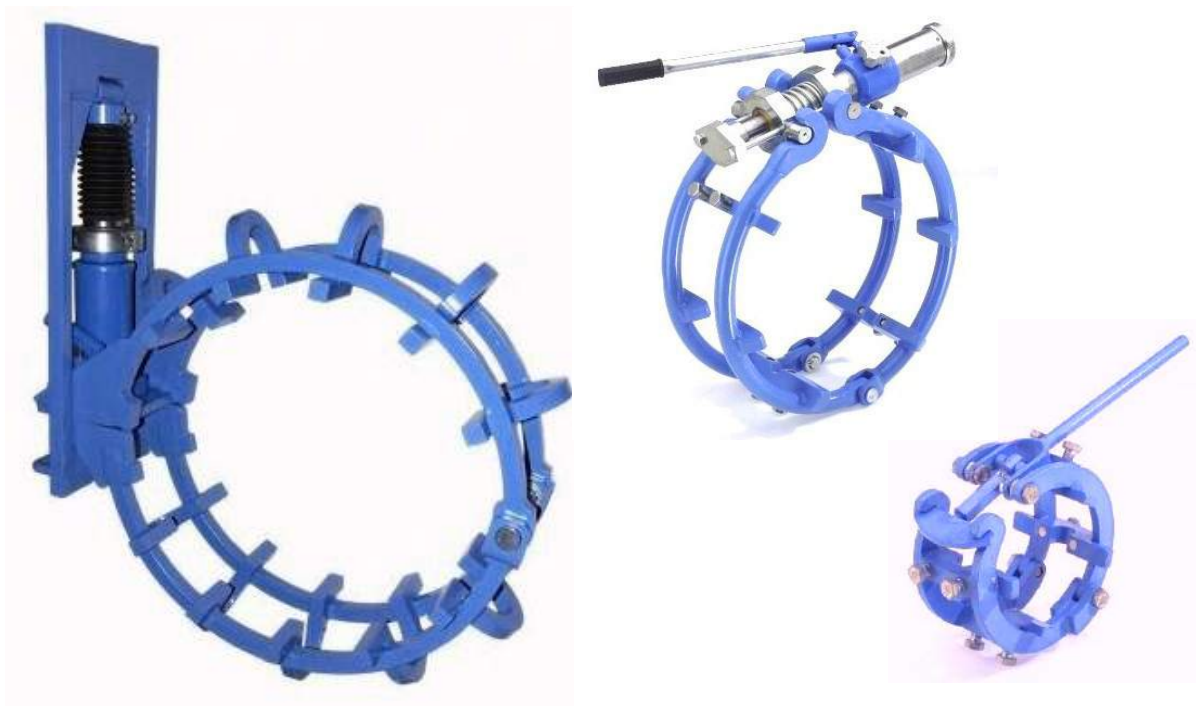
For both kinds of RIM Clamps:

- Available for pipe sizes 4" - 72"+
- Reform high tensile strength pipe up to X80 and above with up to 25 mm. wall thickness
- For out-of-round conditions up to 50 mm.
- Galvanized jackscrews with pivoting pads
- Heavy Duty latching mechanism
- Jackscrew setting gauge make initial set-up easy.
- Torque wrench supplied for accurate reforming pressure
- ULTRA-RIM are AS STRONG (or more) AS MEGA-RIM





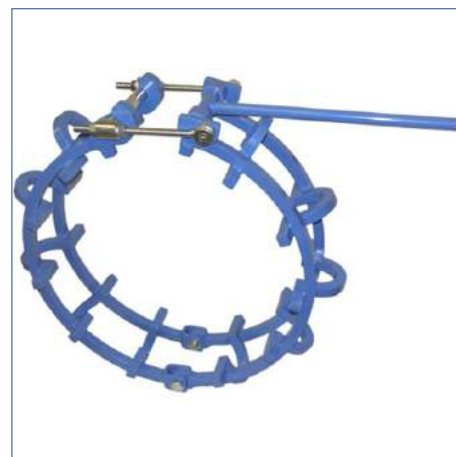
MECHANICAL PIPE CLAMPS hydraulic or manual from 4" till 80"



- manual or hydraulic • no tack version available
- medium and heavy duty version • extremely strong

The mechanical pipe clamps are available in a medium and heavy duty version. Beside the manual version there is also a hydraulic version available. The separate hydraulic cylinder can be taken out and is useable on all medium hydraulic clamps.

Most of these clamps are 'No Tack' versions and offer enough space for welding. In that case the clamp can stay on the pipe during welding.



for

- heat exchanger manufacturing • offshore constructions
- apparatus manufacture • equipment constructions
- shipbuilding • machine construction • pipeline construction

technical specifications Pipe Clamps



Model	Mechanical	Mechanical	Hydraulic ⁽¹⁾	Hydraulic
Version	medium	medium	medium	heavy
Clamping range	DN/Inch (mm)	DN/Inch (mm)	DN/Inch (mm)	DN/Inch (mm)
	100/4" (114,3)	-	-	-
	125/5" (133,0 - 139,7)	-	-	-
	150/6" (159,0 - 168,3)	-	-	-
	200/8" (219,1)	-	-	-
	250/10" (273,0)	-	-	-
	300/12" (323,9)	-	300/12" (323,9)	-
	350/14" (355,6)	-	350/14" (355,6)	-
	400/16" (406,0)	-	400/16" (406,0)	400/16" (406,9)
	450/18" (457,0)	-	450/18" (457,0)	450/18" (457,0)
	500/20" (508,0)	-	500/20" (508,0)	500/20" (508,0)
	-	600/24" (610,0)	600/24" (610,0)	600/24" (610,0)
	-	700/28" (711,0)	700/28" (711,0)	700/28" (711,0)
	-	750/30" (762,0)	750/30" (762,0)	750/30" (762,0)
	-	800/32" (813,0)	800/32" (813,0)	800/32" (813,0)
	-	850/34" (864,0)	850/34" (864,0)	850/34" (864,0)
	-	900/36" (914,0)	900/36" (914,0)	900/36" (914,0)
	-	1000/40" (1016,0)	1000/40" (1016,0)	1000/40" (1016,0)
	-	1050/42" (1067,0)	1050/42" (1067,0)	1050/42" (1067,0)
	-	1100/44" (1118,0)	1100/44" (1118,0)	1100/44" (1118,0)
	-	1200/48" (1220,0)	1200/48" (1220,0)	1200/48" (1220,0)
	-	1300/52" (1320,0)	1300/52" (1320,0)	1300/52" (1320,0)
	-	1400/56" (1420,0)	1400/56" (1420,0)	1400/56" (1420,0)
	-	1500/60" (1520,0)	1500/60" (1520,0)	1500/60" (1520,0)
	-	1600/64" (1620,0)	1600/64" (1620,0)	1600/64" (1620,0)
	-	-	1700/68" (1720,0)	1700/68" (1720,0)
	-	-	1800/72" (1820,0)	1800/72" (1820,0)
	-	-	2000/80" (2020,0)	2000/80" (2020,0)

⁽¹⁾ The necessary hydraulic cylinder has to be ordered separately. The medium duty clamp does not come standard with a hydraulic cylinder. The hydraulic cylinder can be used on all medium duty clamps.



The heavy duty hydraulic pipe clamps have a build in hydraulic pump under a bridge construction that offers optimal free space for conducting the welding process.

The hydraulic cylinder is provided with an interlock ring that can be rotated against the housing.

The cylinder must be placed vertical at all times. See image on the left. (Hydraulic Model DN 500 heavy duty version).



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EXTERNAL LINE-UP CLAMPS

Tongs-type version 1" till 2.1/2", standard version 3.1/2" till 20"



- Handy tongs-type model available • no tack version
- direct welding possible • stable and strong

External Line-Up Clamps DN 25 - DN 500 (cage clamps) for vertical-downhill welding version with spindle - This external line-up clamp allows to weld the root without need for prior tack-welding.

This device is often used in pipeline construction instead of an internal line-up clamp, which requires to produce the entire root pass first until the clamp can be removed.



For

- heat exchanger manufacturing • offshore constructions
- Apparatus manufacture • equipment constructions
- shipbuilding • machine construction • pipeline construction

Technical specifications



Type	External Line-Up	External Line-Up
Model	Tongs	Standard spindle
Range	DN / Inch / (mm)	DN / Inch / (mm)
	25 / 1" (33,7)	-
	32 / 1.1/4" (42,4)	-
	40 / 1.1/2" (48,3)	-
	50 / 2" (60,3)	-
	65 / 2.1/2" (76,1)	-
	-	80 / 3.1/2" (88,9)
	-	100 / 4" (108,0)
	-	100 / 4" (114,3)
	-	125 / 5" (133,0)
	-	125 / 5" (139,7)
	-	150 / 6" (159,0)
	-	150 / 6" (168,3)
	-	200 / 8" (219,1)
	-	250 / 10" (273,0)
	-	300 / 12" (323,9)
	-	350 / 14" (355,6)
	-	400 / 16" (406,0)
	-	450 / 18" (457,0)
	-	500 / 20" (508,0)



When using this clamp, tack-welding is not required. Simply complete the root pass and then remove the clamp.

By means of an eccentric, both pipe ends can be aligned by means of the bridges without any hi-lo offset of the pipe edges.

The clamps are made of steel, galvanized.



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Purge gas fingers

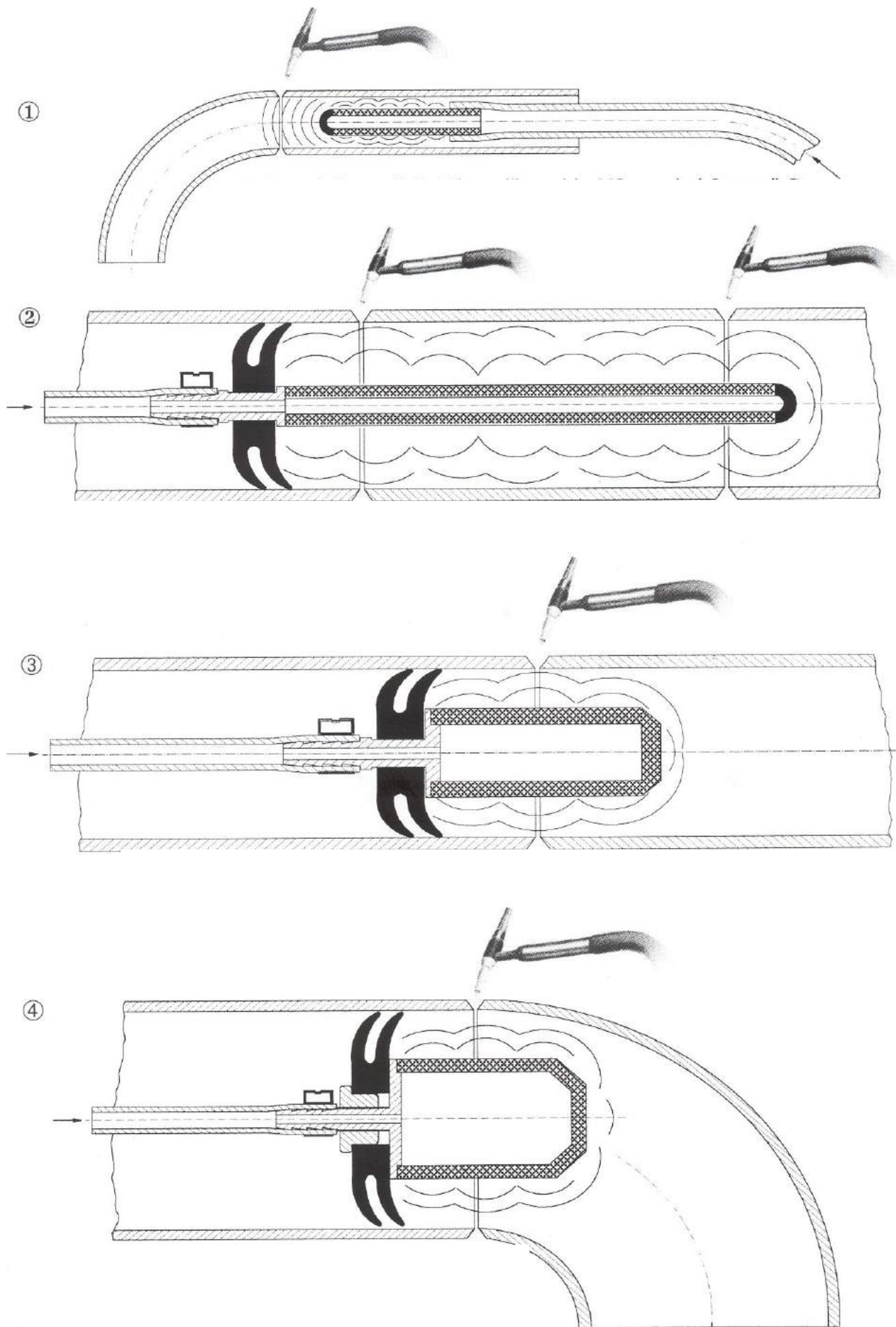
SUITABLE FOR PIPES FROM
16 TILL 44 mm. I.D.



The purge gas fingers are deliverable in the lengths 12 mm, 25 mm, 50 mm and 120 mm. This length is dependent on the application. Purge gas fingers have a range from 16 mm till 44 mm I.D.

The sinter metal inflow element and the one-sided gas seal guarantees a simple and fast application, whereby welding corrosion on the inside of the pipe will be prevented. The purge gas finger is easy to mount and removeable because the gas hose can be used as a hauling cable.

Application examples backinggas-fingers





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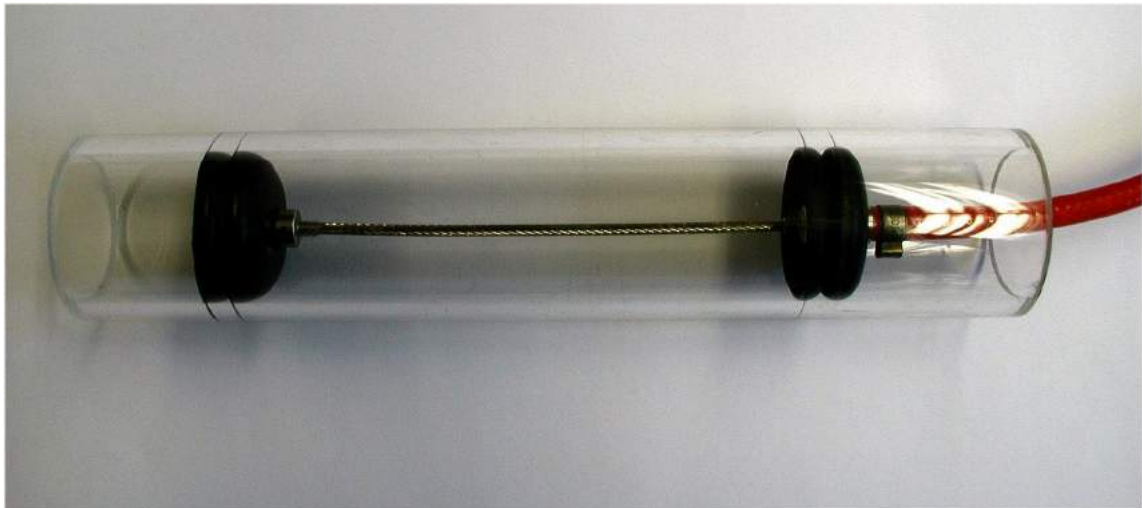
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PIPE PURGING CYLINDER MINI

Suitable for pipes 16 till 49 mm. i.d.



Pipe purging cylinders MINI

The **advantage** of the pipe purging cylinders is that filling of whole lengths of pipes, with backinggas, is not necessary anymore.

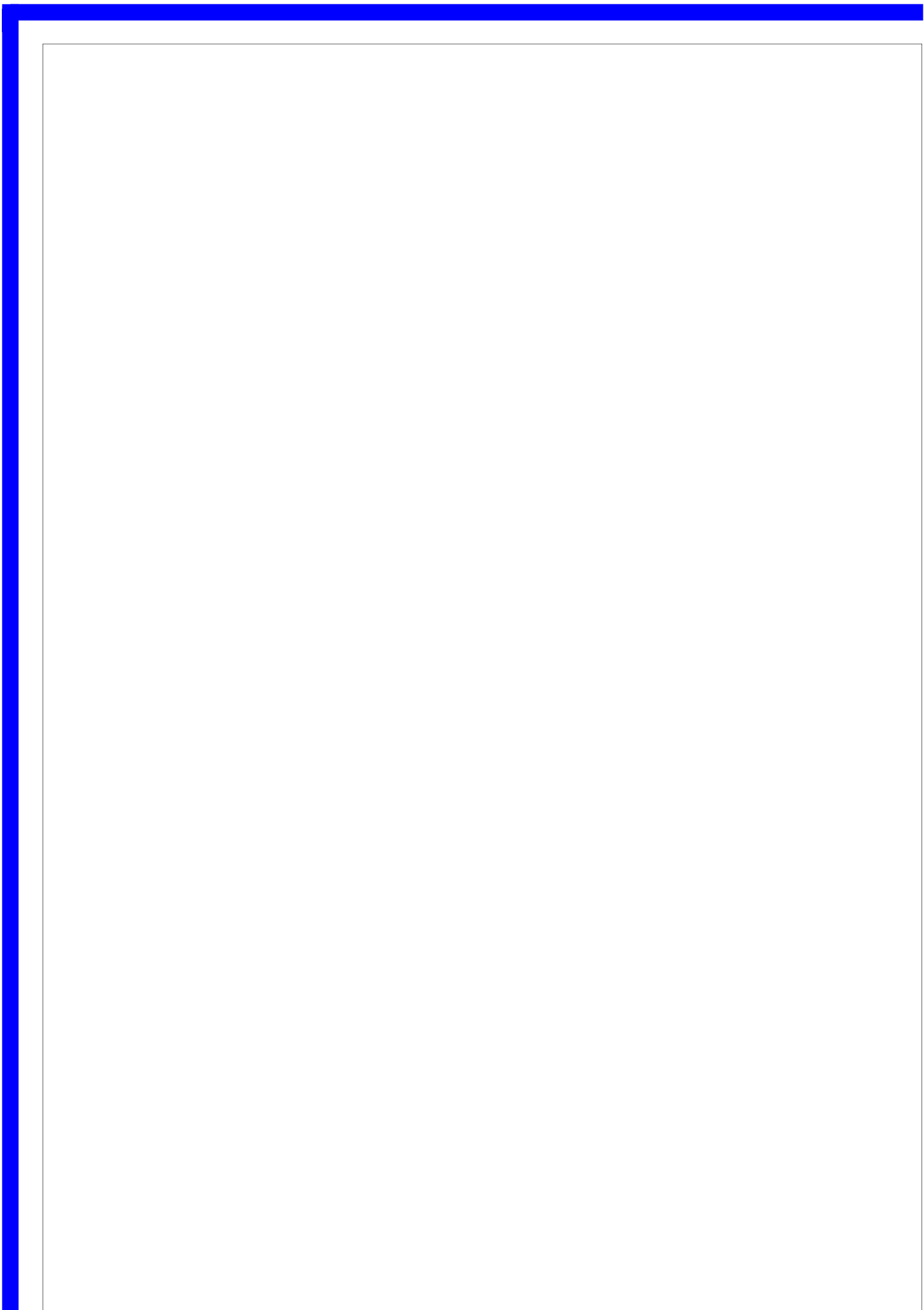
The plates of the pipe purging cylinders have a temperature resistance of 330° C. and are also suitable for welding of welding bends.

The system consist of :

- 2 plates.
- Stainless steel connection piece Ø 3 mm.
- 10 meter hose with coupling.

The MINI system can be supplied in the range :

- Ø 16—19 mm.
- Ø 19—24 mm.
- Ø 24—29 mm.
- Ø 29—34 mm.
- Ø 34—38 mm.
- Ø 38—44 mm.
- Ø 43—49 mm.





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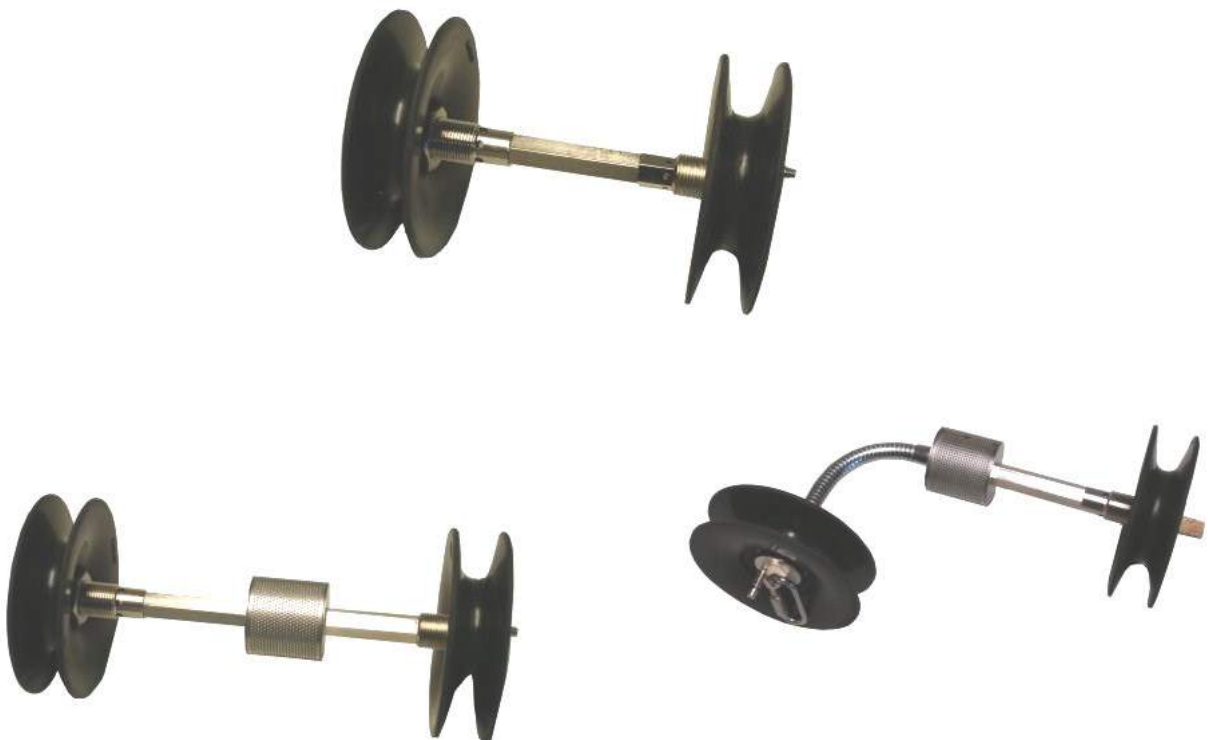
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PIPE PURGING CILINDER

System 1

Suitable for pipes 38 till 140 mm. i.d.



Pipe purging cilinders

The **advantage** of the pipe purging cilinders is that filling of whole lengths of pipes with backinggas, is not necessary anymore.

The plates of the pipe purging cilinders have a temperature resistance of 330° C. The pipe purging cilinders are also suitable for welding of welding bends.

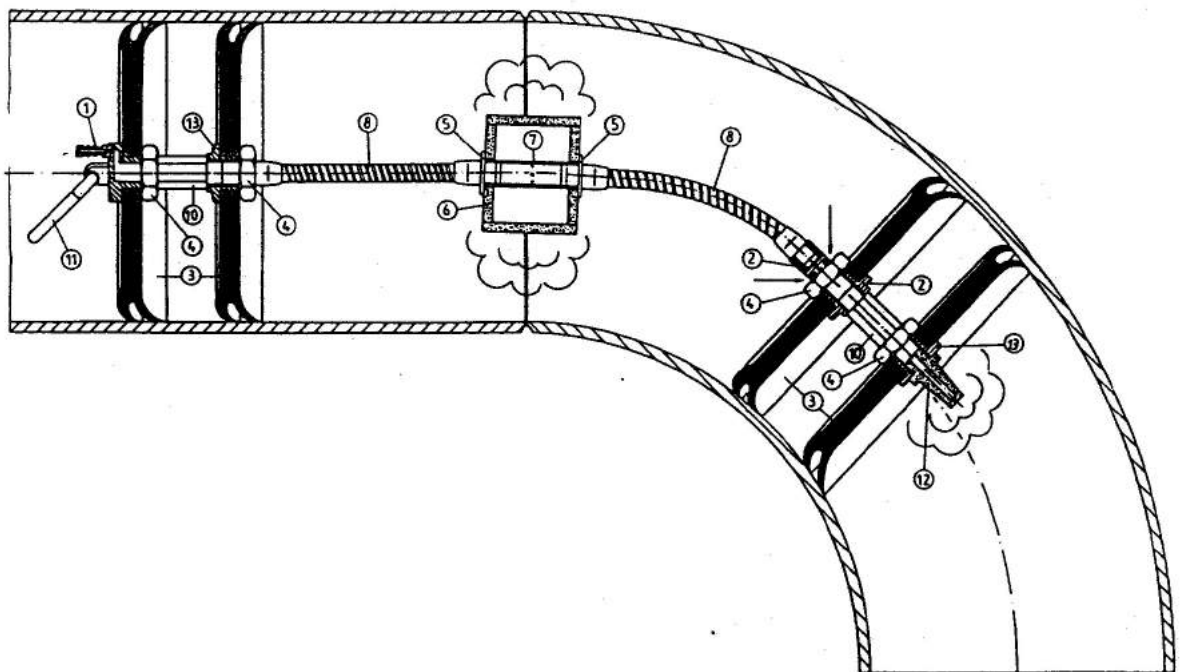
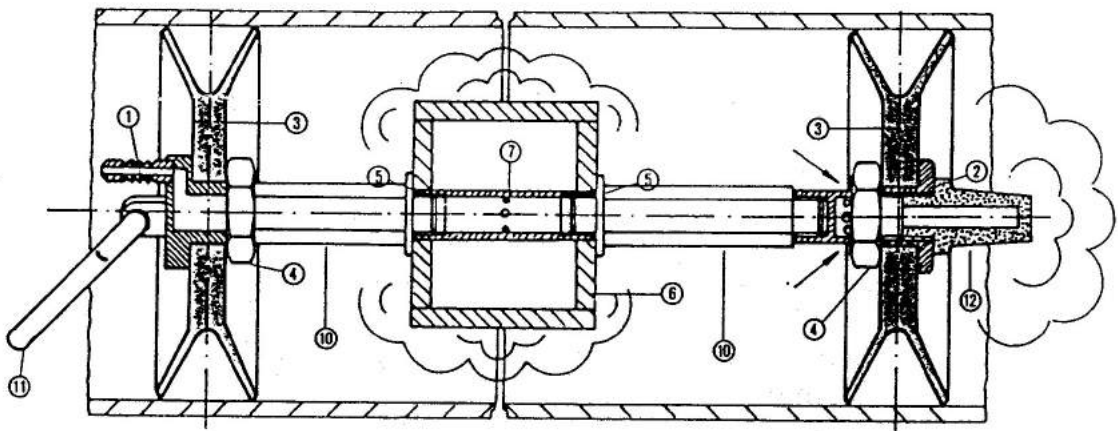
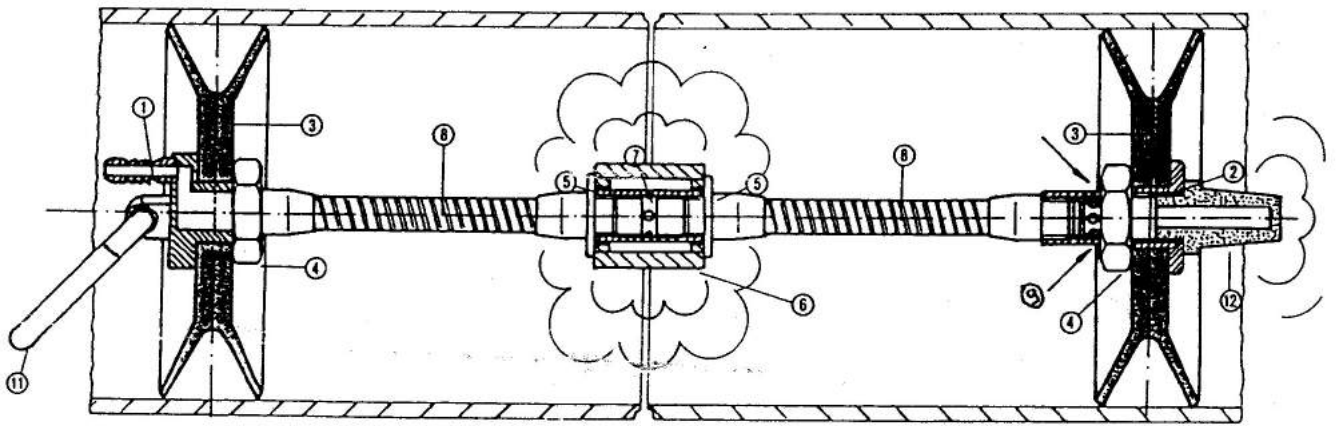
The system will be delivered with all components for making several systems as shown on the photo's.

Further supplied with:

- Gas-connection.
- 10 meter pulling cable
- 10 meter gas hose.



EXAMPLES





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Backinggas-set Range DN 15 - DN 150



Professional 59-parts set consisting of backinggas-fingers for the small diameters from DN 15 and silicon discs till DN 150.

The set is delivered in a strong aluminium case complete with fixed and bendable connecting pieces, several sintermetal gas distributors, gas volumemeter, hoses and pulling cable.

See backside for complete content of the case.

Containement backinggas-set

Number	Description
1	Case
1	Backinggas finger Ø 10 mm x 50 mm long
1	Backinggas finger Ø 22 mm x 50 mm long
1	Siliconendisc Ø 21 x 6 mm fitting to backinggas fingers
1	Siliconendisc Ø 26 x 6 mm fitting to backinggas fingers
1	Siliconendisc Ø 31 x 6 mm fitting to backinggas fingers
1	Siliconendisc Ø 36 x 6 mm fitting to backinggas fingers
1	Siliconendisc Ø 41 x 6 mm fitting to backinggas fingers
1	Siliconendisc Ø 46 x 6 mm fitting to backinggas fingers
1	Siliconendisc Ø 51 x 6 mm fitting to backinggas fingers
2	Siliconendisc (4-lips) Ø 50 x 18 mm
2	Siliconendisc (4-lips) Ø 55 x 18 mm
2	Siliconendisc (4-lips) Ø 60 x 18 mm
2	Siliconendisc (4-lips) Ø 70 x 18 mm
2	Siliconendisc (4-lips) Ø 80 x 18 mm
2	Siliconendisc (4-lips) Ø 90 x 18 mm
1	First disccarrier M 18 x 1,5
1	Last disccarrier M 18 x 1,5
1	Nut M 18 x 1,5
2	Screweable chain-segment Ø 4 mm
1	Sintermetal gas distributor Ø 36 mm x 40 mm long
2	Siliconendisc (4-lips) Ø 115 x 20 mm
2	Siliconendisc (4-lips) Ø 145 x 20 mm
2	Siliconendisc (4-lips) Ø 175 x 20 mm
1	First disccarrier M 20 x 1,5
1	Last disccarrier M 20 x 1,5
1	Nut M 20 x 1,5
1	Screweable chain-segment Ø 4 mm
1	Sintermetal gas distributor Ø 65 mm x 40 mm long
1	Pliable connection 120 mm long
1	Pliable connection 150 mm long
1	Pliable connection 200 mm long
1	Rigid connection SW 14 50 mm long
1	Rigid connection SW 14 100 mm long
1	Rigid connection SW 14 150 mm long
1	Connector SW 14
1	10 meter Reinforced double layer PVC hose Ø 5 x 8 mm
4	St. St. ear hoseclamp with inner ring Ø 10,0 mm
2	Brass hosecoupling DN 5 with gas-stop
2	Hose connector brass DN 5 for coupling
1	Brass nut G 1/4" R with hose connector DN 5 for argon pressure reducer
1	10 meter pulling wire Ø 2 mm
1	Aluminium covering-tape 25 mm width x 25 m long
1	Aluminium covering-tape 33 mm width x 25 m long
1	Gas volumemeter till 50 Liter / Minute



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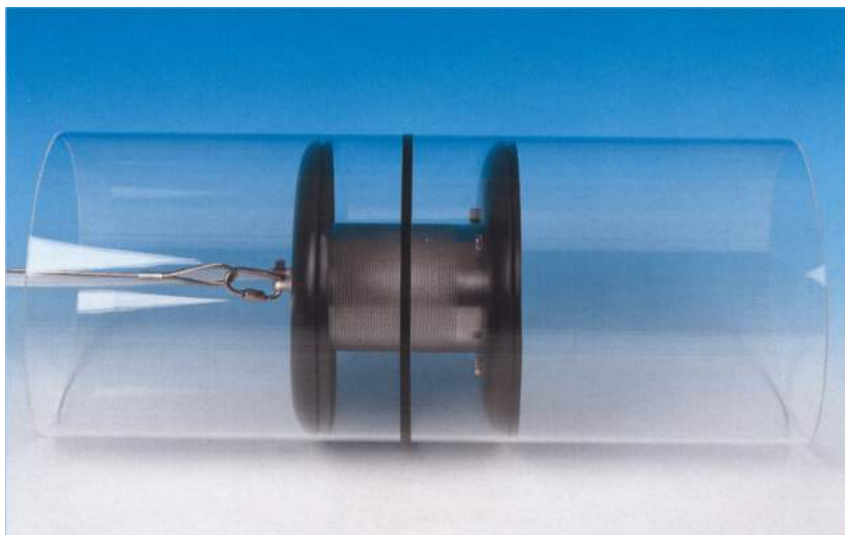
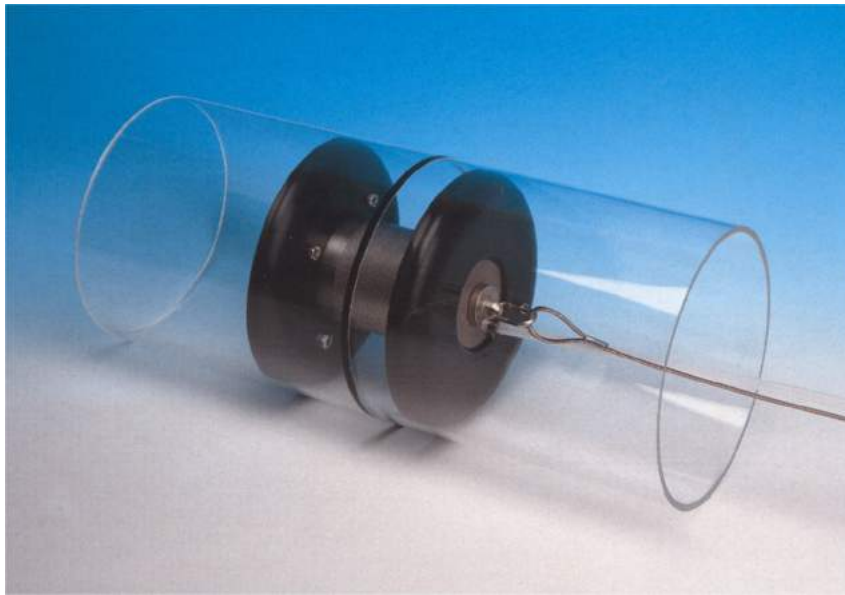
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BACKINGGAS SYSTEM COMPACT

SUITABLE FOR PIPES OF 105 mm. UPTO 410 mm I.D.



Backinggas set COMPACT

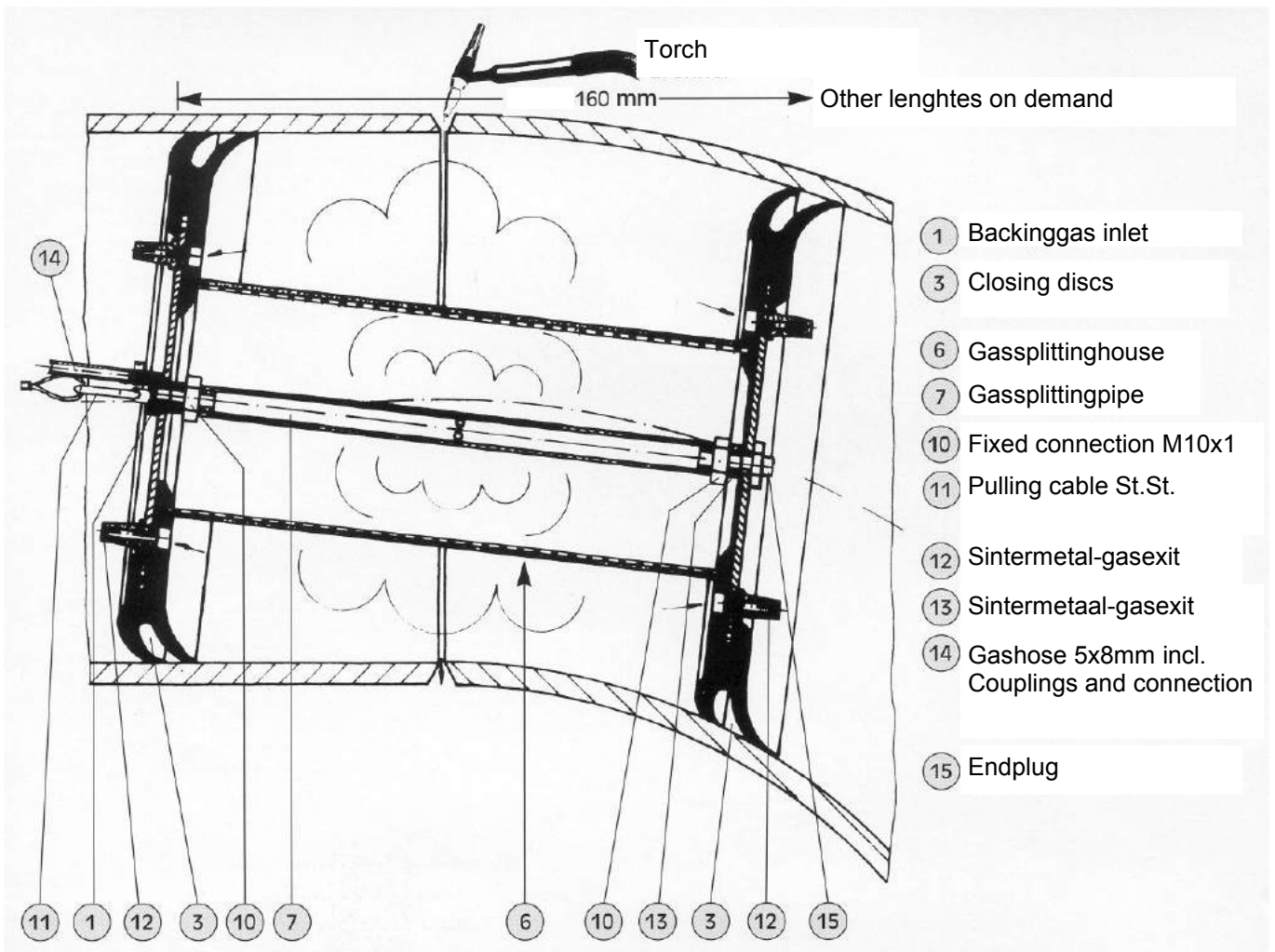
Complete delivered including

- Gas-connection.
- 10 meter pulling cable (st.st.)
- 10 meter gas hose
- Oxygen-measure-connect.

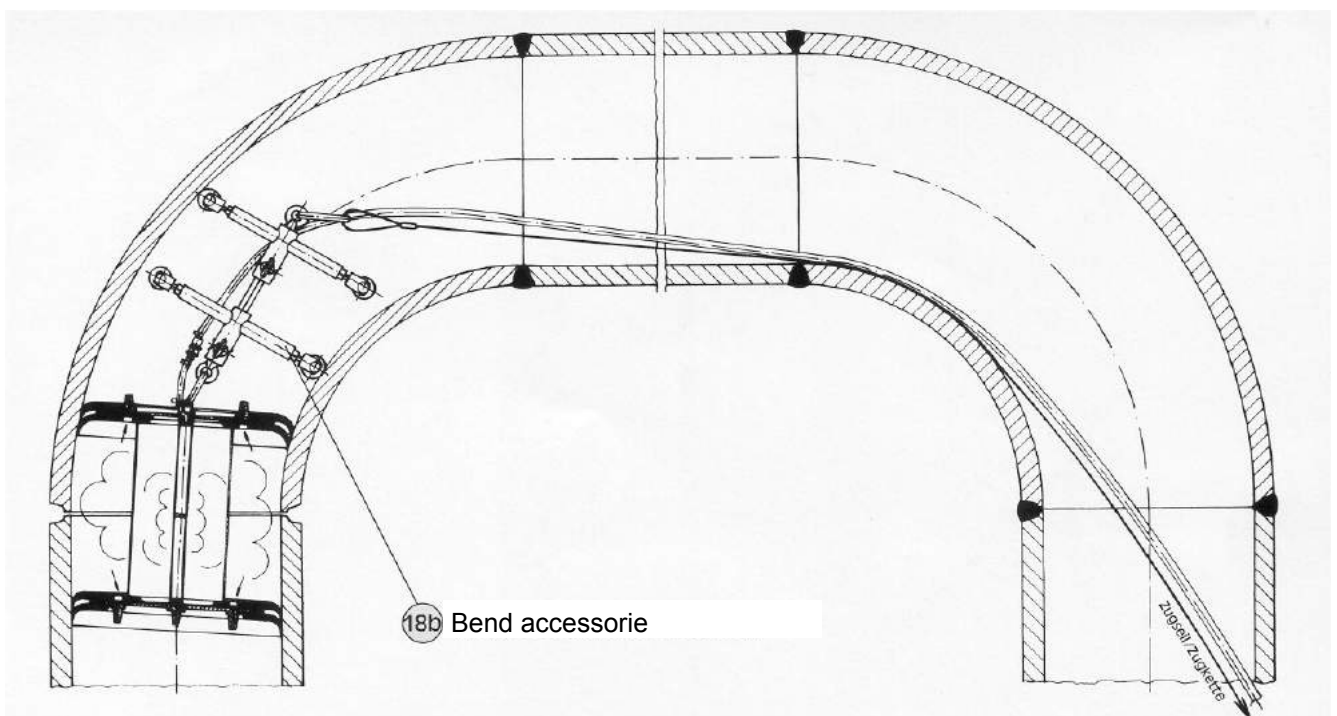
The advantages of the Backinggas set COMPACT :

- Filling with backinggas of whole lengths of pipe is not needed anymore.
- Short flushing times.
- Compact construction.
- Suitable for bends.
- Resistant to a temperature of 330C°

Backinggas-cilinders COMPACT



Also usable for bends





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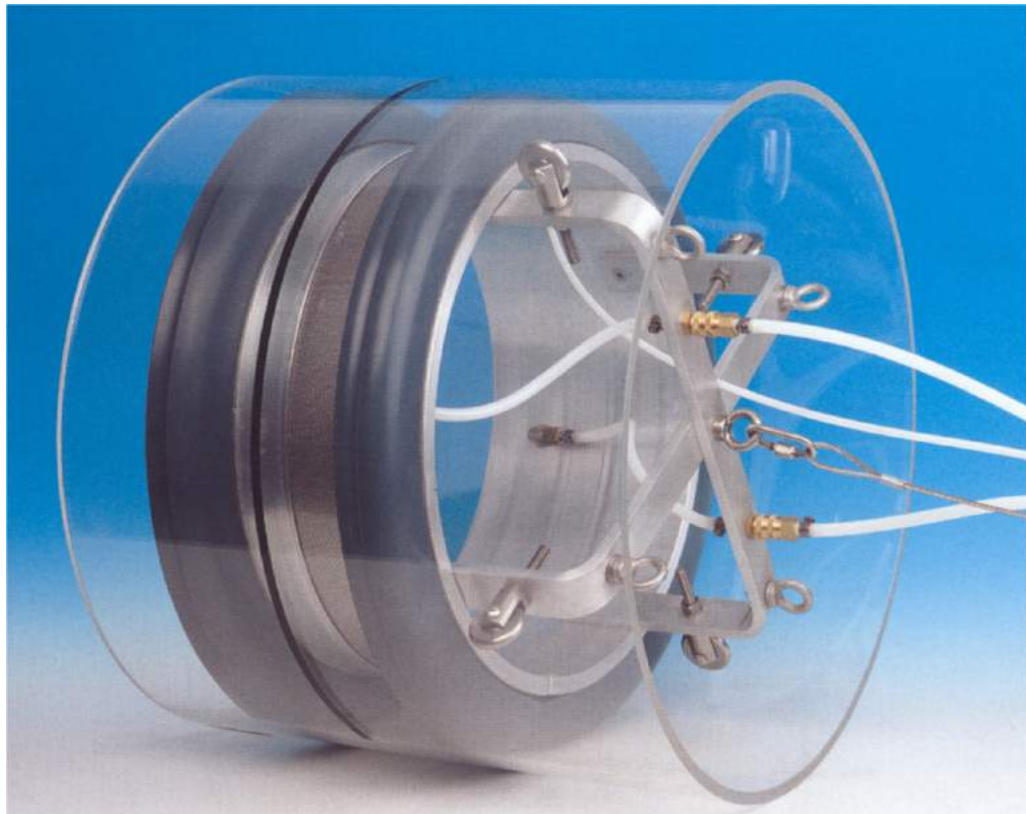
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BACKINGGAS RINGS

SUITABLE FOR PIPES FROM
380 mm. I.D. AND UPWARDS

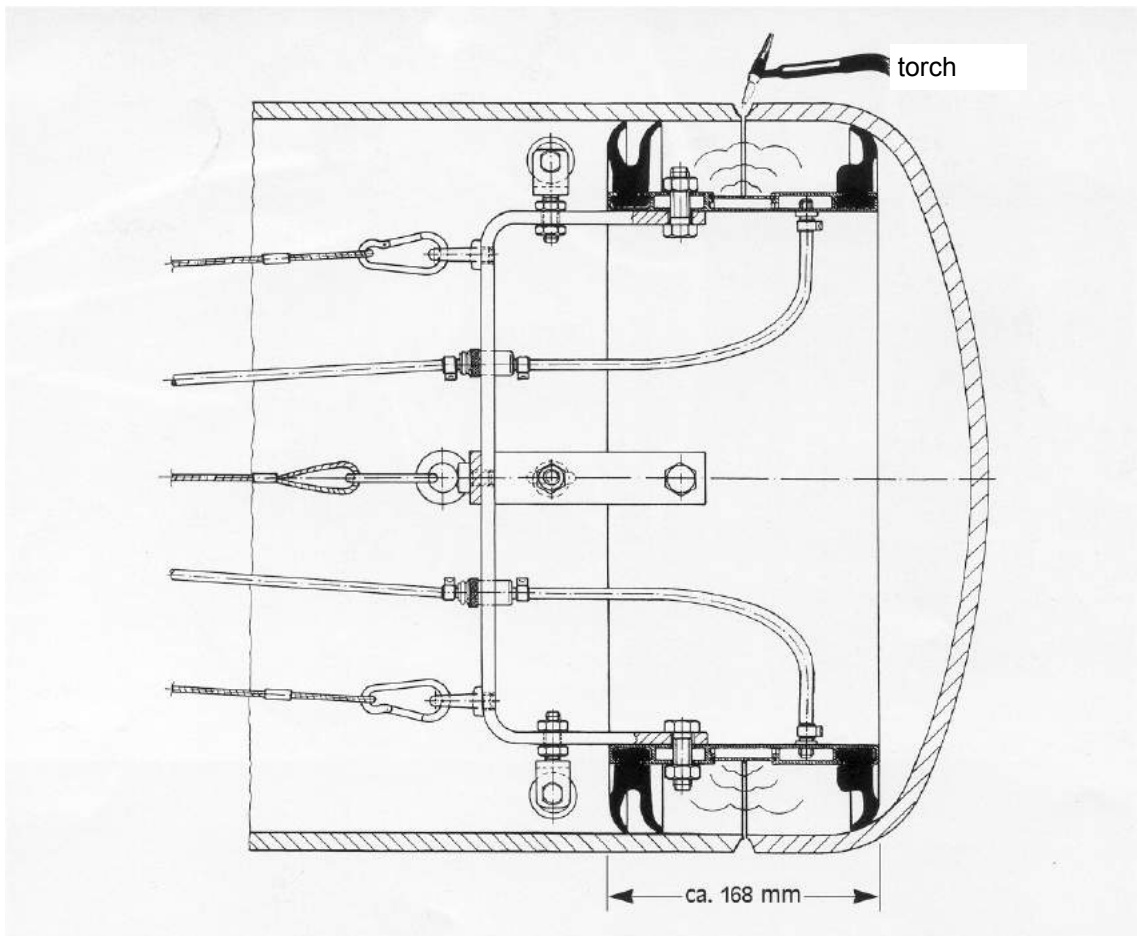
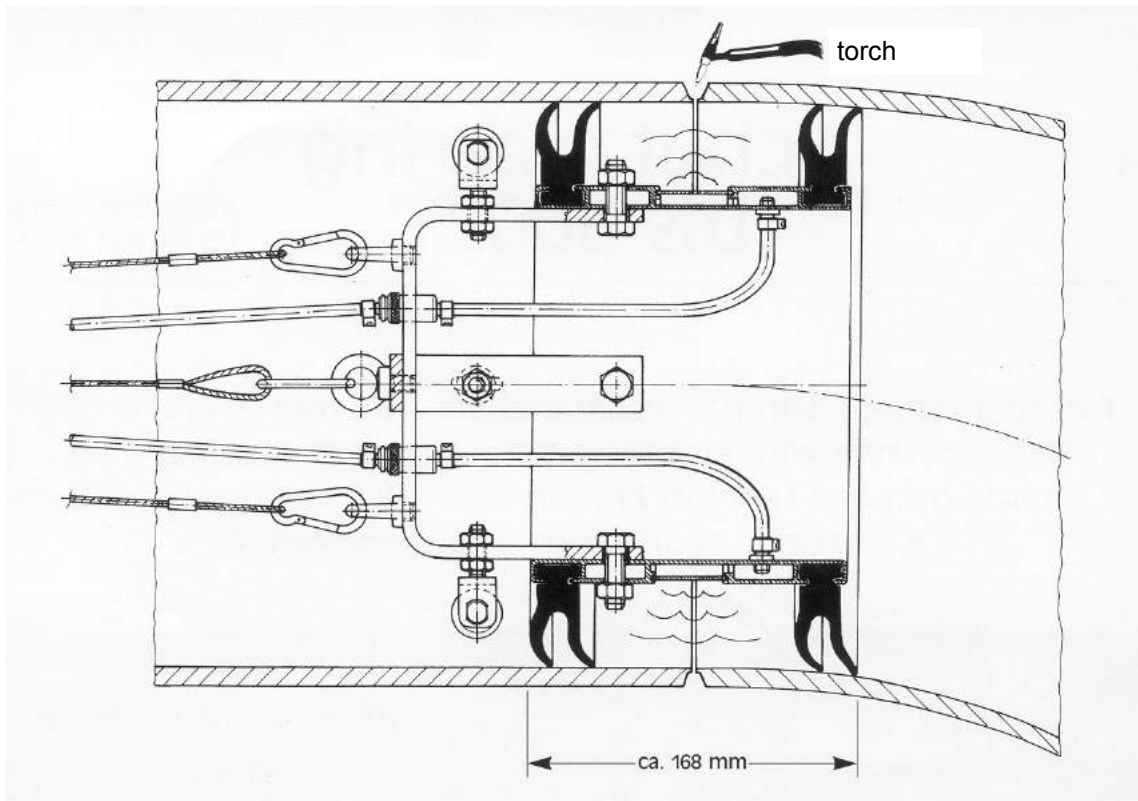


Backingas rings

The **advantage** of the backinggas rings is that filling of whole lengths of pipes, with backinggas, is not necessary anymore.

The silicon-rings of this system have a temperature resistance of 300° C.

The backinggas rings are also suitable for welding of elbows.





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PIPE PURGING BLADDERS



Uses less inert gas

The volume to be purged is localised. For a typical pipe run, the volume of gas used is less than 2% of that required for a conventional purge.

Faster

The system is very quick and easy to install. It can be positioned accurately and the bladders inflate instantly. The purging time is a fraction of that required to purge by conventional methods.

Easy to use

The pipe purging bladders greatly simplify the process of inert gas purging. Training is minimal, leading to bright shiny welds very quickly.

Improved quality of welds

The process involved is highly reliable. It gives regular, controlled high quality results.

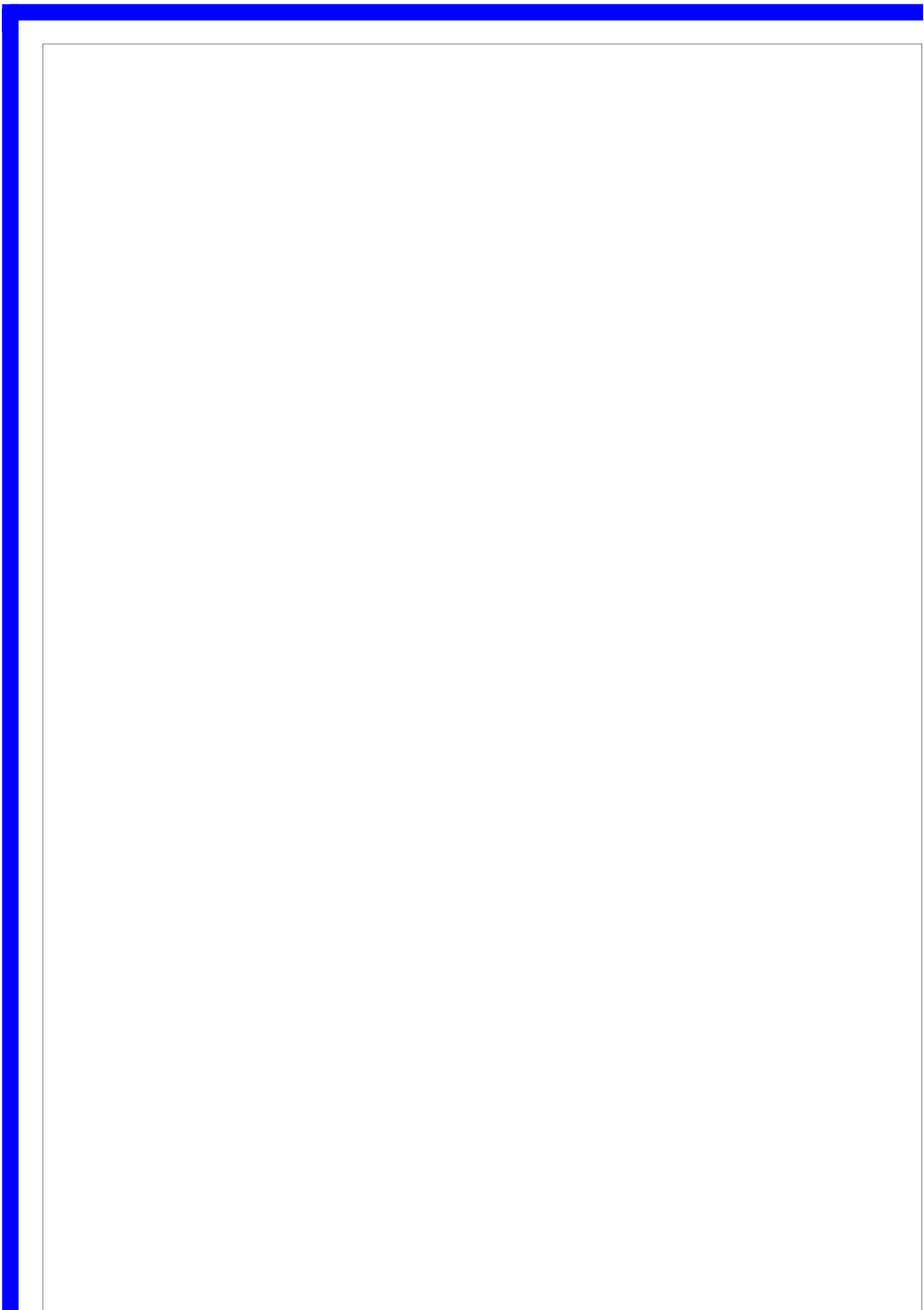
Fast pay back

This system pays for itself in just a few welds.



DIAMETER

50 mm.	- 2"
80 mm.	- 3"
100 mm.	- 4"
150 mm.	- 6"
200 mm.	- 8"
250 mm.	- 10"
300 mm.	- 12"
350 mm.	- 14"
400 mm.	- 16"
450 mm.	- 18"
500 mm.	- 20"
600 mm.	- 24"





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Centra purge gas pipe clamps



Manual pipe clamps

Stainless steel clamps for centering clamps. The purge gas can be supplied through the clamping head. The clamp is also usable for only clamping, then it will be executed in carbon steel.

Deliverable for internal diameters from 34 till 374 mm.

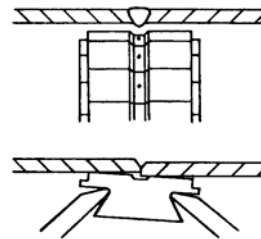
Hydraulic pipe clamps

Stainless steel clamps for centering pipes. Clamping goes through a hydraulic foot pump. The clamp is also usable for only clamping, then it will be executed in carbon steel. Deliverable for internal diameters from 102 till 804 mm.



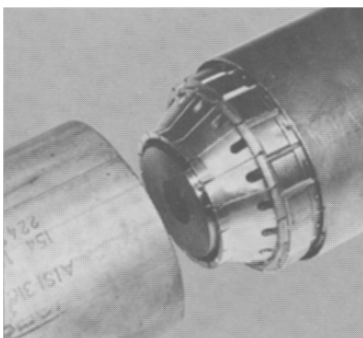
Aerospace pipe clamps

The aerospace pipe clamps are hydraulic operated pipe clamps, suitable for thinwalled pipes especially used in the aviation.

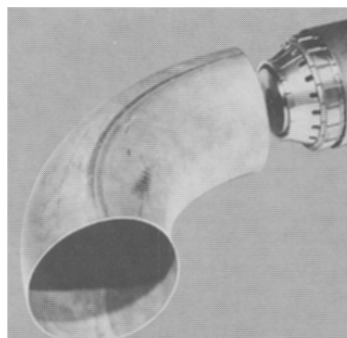


The conical fingers operate independently from each other, by this pipes are always clamped "in line".

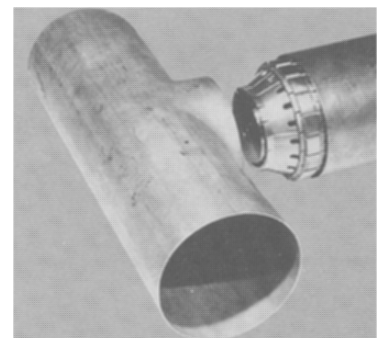
Applications



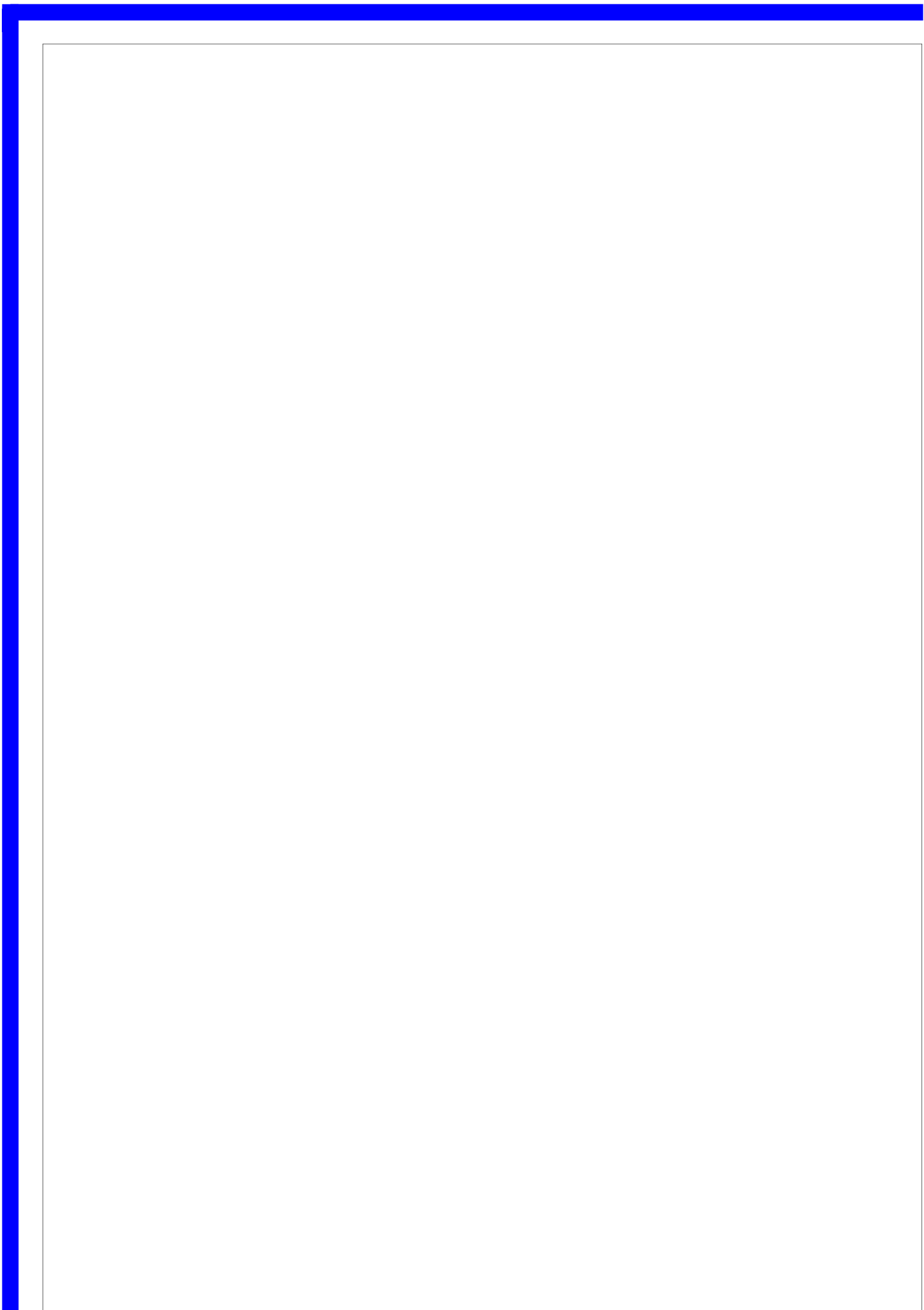
Pipe, pipe-connection



Pipe, bend - connection



Pipe - T joint connection





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Oxygen measure devices

The oxygen measure devices are used for residual oxygen determination (smallest measured value 1 ppm vol.) in the coming used protective gases. These devices are an indispensable aid in quality assurance.

They are also an indispensable aid in the detection of leaks and oxygen in the determination of welding parameters for welding procedure tests.



Technical specifications



Type	PRO OX-100	4115B	Aero L	Aero F
Power / Voltage	1 Battery 9V NiMH rechargeable	230V	230V	230V
Range	100 - 250.000 ppm O ²	1 - 1.000 ppm O ²	0 - 1.000 ppm O ²	0 - 1.000 ppm O ²
Dimensions	175 x 89 x 49 mm	250 x 200 x 80 mm	250 x 200 x 200 mm	250 x 200 x 200 mm
Dimensions case	280 x 220 x 100 mm	370 x 310 x 145 mm	370 x 310 x 145 mm	370 x 310 x 145 mm
Weight	1,53 Kg incl. case	1,9 Kg (incl. case 4,3 Kg)	4 Kg (incl. case 6,4 Kg)	4 Kg (incl. case 6,4 Kg)
Calibration	Weekly (depending on use) Self calibrating	½ - 1 yearly	Self calibrating	Self calibrating
Temperature	0°C tot 50°C	0°C till 50°C	10°C till 40°C	10°C till 40°C
Alarm signals	Acustic & Optic	No	Acustic & Optic	Acustic & Optic
Precision of measurements by normal pressure	99,995% AR +/- 0.01%	-	rel. measurement error < 3 % within the range 2 x 105 - 10 ppm rel. measurement error < 5 % within the range 10 - 0,1 ppm	rel. measurement error < 3 % within the range 2 x 105 - 10 ppm rel. measurement error < 5 % within the range 10 - 0,1 ppm
Pump capacity	1 l / Min max.	2-3 ltr / Min.	5-10 l/h	5-10 l/h
Data recording	USB cabel / memory	-	-	USB





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PICK & CLEAN Eco-friendly stainless steel pickling and passivation

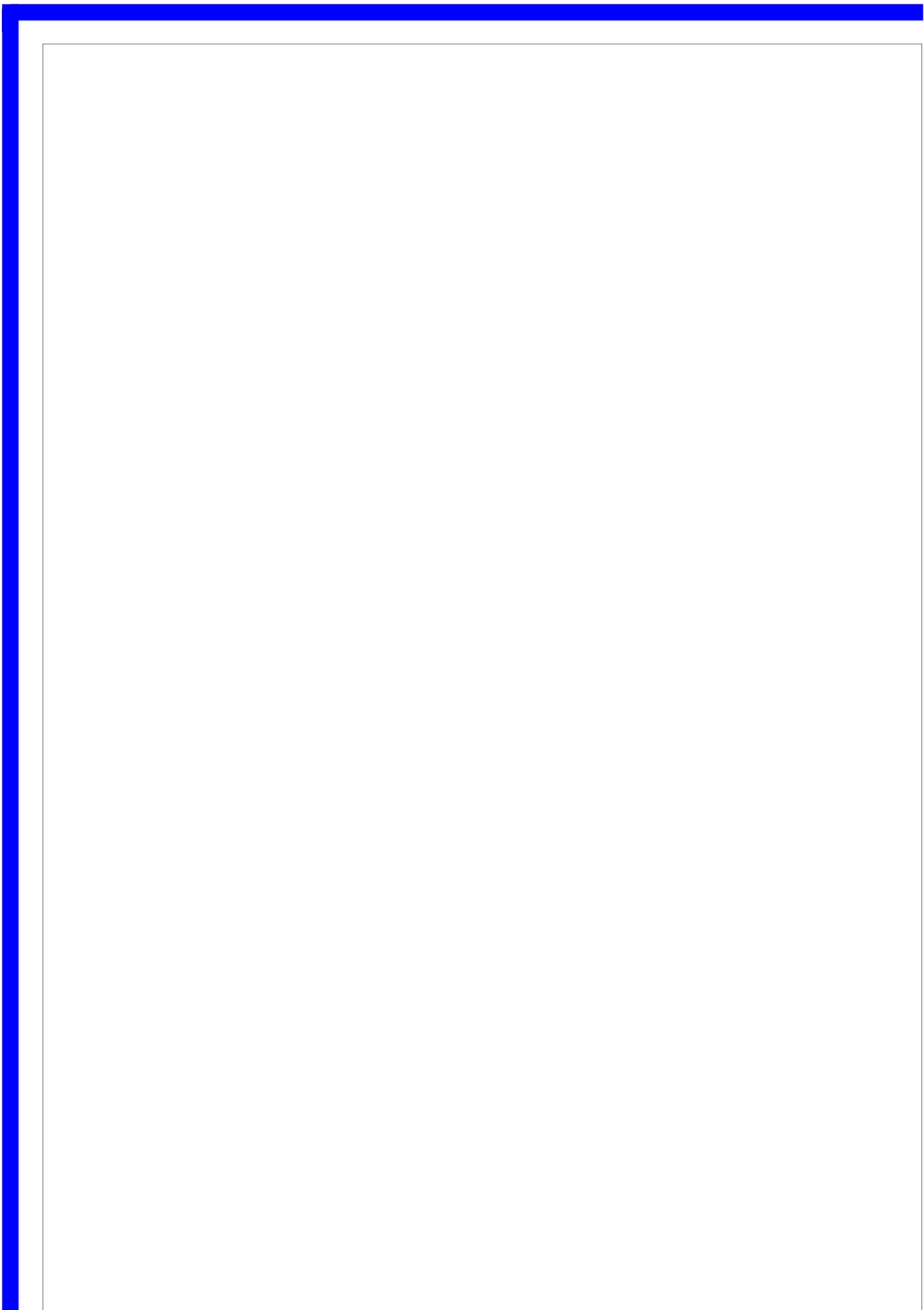


Pick & Clean is the eco-friendly solution for stainless steel pickling and passivation: Pick & Clean, indeed. Ideal for those who need to intervene during the process, Pick & Clean is easy to use: first, you need to apply the Pick strip on the weld to be treated, to remove slags and oxydation caused by the welding process, thus restoring the natural state of the steel.

Then, after removing the pickling strip, you apply the Clean Wipes, which acts both as a neutralizer and as a restraint of future corrosive phenomena.

Once you removed the Clean Wipes and wipe with a dry cloth, the stainless steel surface will be pickled, without any slag or oxydation.







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DEOX & FIT

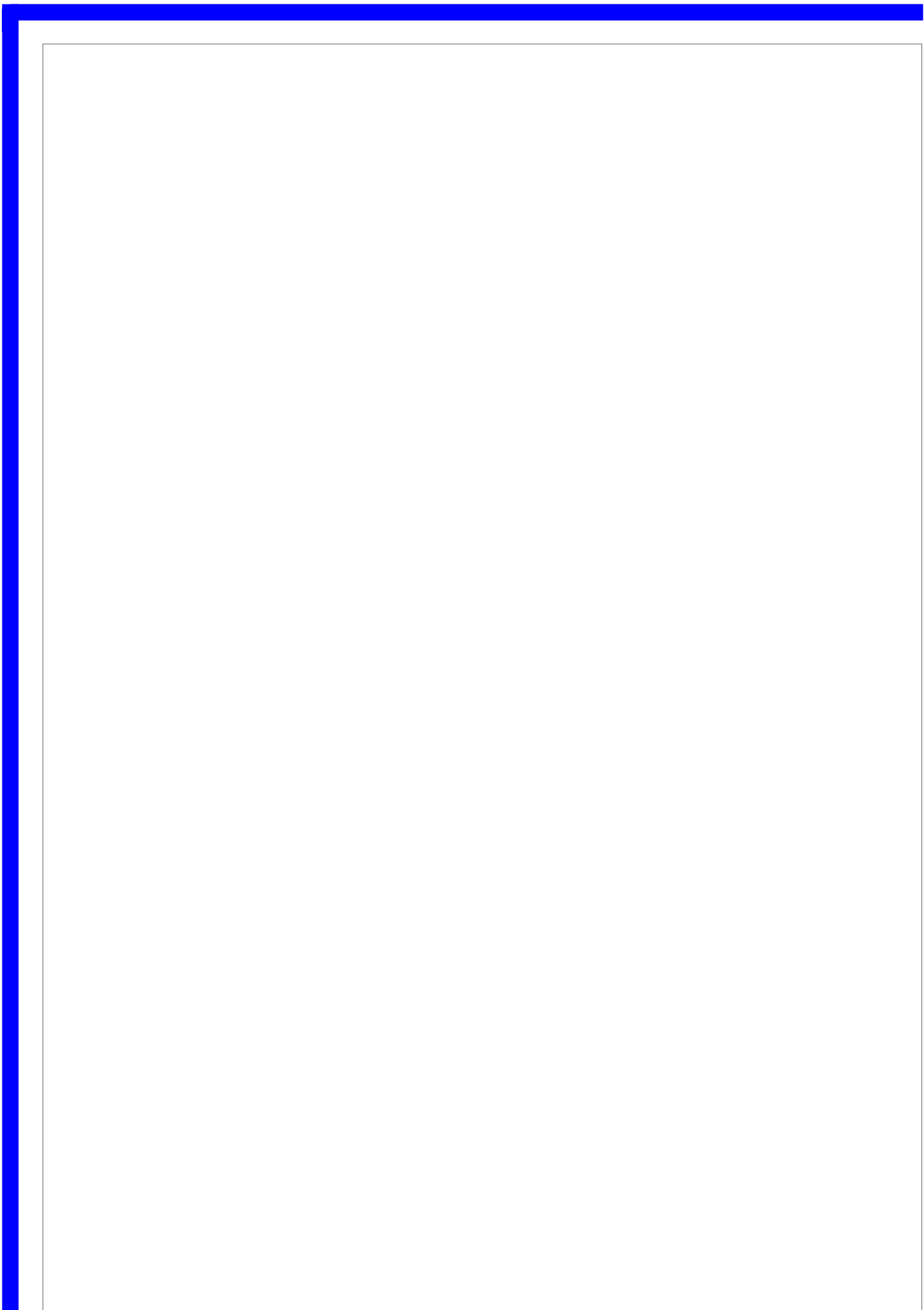
Environmentally friendly stainless steel deoxidation and re-passivation



Deox & Fit is the Nitty-Gritty idea allowing the deoxidation and re-passivation of stainless steel. Designed for those who need to intervene during the process.

Deox & Fit is easy to use : first, you rub the Deox wipe on the stainless steel parts to be treated (in a few seconds the oxydations on the stainless steel surface will disappear) ; then you spray the Fit component, which will act both as a neutralizer and as a restraint of future corrosive phenomena; finally, you remove the Fit component with a dry cloth. Three quick steps to make the treated surface shine, without oxidations, perfectly protected, as good as new.







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NEUTRIX

Portable grinding machine
For Tungsten electrodes



- Integrated exhaustion with a replaceable dust filter
- Triple use of the diamond wheel
- Easy to use, combined electrode positioning and locking device
- Grinding electrode as short as 8 mm

NEUTRIX - the only Tungsten grinder with an integrated dust filter

The developing of NEUTRIX* have produced a portable Tungsten grinder, that is both environmentally friendly and able to grind quality points on Tungsten electrodes for TIG and plasma welding.

The storage case along with the moderate weight make NEUTRIX ideal for working on site.

NEUTRIX is the only machine, that is equipped with an integrated dust filter, thereby protecting the operator and the environment against the unhealthy dust produce during grinding of the electrode. The filter is replaceable.

Due to the use of an electrode holder NEUTRIX is able to grind electrodes as short as 15mm with a standard electrode clamp, with a special electrode clamp as short as 8mm can be ground. The use of the electrode holder also ensure a precise and centred tip.

NEUTRIX is equipped with an inspection cover enabling the operator to see the grinding operation. NEUTRIX is easy to operate, set the required grinding angle, secure the electrode into the holder using the locking devise. The electrode is now set so as to minimise the amount of grinding required (0,3mm removal).

As something quite unique NEUTRIX is equipped with an eccentric plate, which makes it possible to adjust the grinding position on the face of the wheel, this triples the life of the diamond wheel.

NEUTRIX is supplied in a case fully equipped for use, electrode clamps for 1,6, 2,4 and 3,2 mm Tungsten's are included, other dimensions are available. NEUTRIX is CE marked and is manufactured to meet all EU directives.

* Patent pending

Technical data:

Power supply:	110/230V	Motor:	850W
Elektrodes:	1,0 mm to 4,0 mm	Vibrations:	0,63 m/s ²
Filtercassete:	Oneway filter	Speed:	23.000 Rpm.
Diamant disc ø:	40 mm	Weight:	2,8 Kg
Noise:	70,3 dB(A)		



Adjustable grinding angle from 15-180° (included angle).



Precise adjustment of the stick-out.



Eccentric plate triples the use of the diamond wheel.



Integrated exhausting with a replaceable dust filter.



Stand to fix the NEUTRIX to a bench.



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TIP TRIMMER

Patented wet-grinding machine for both grinding and cutting of tungsten electrodes.



- Unique design to enable the lifetime of the diamond wheel to be tripled.
- Precise longitudinal grinding to eliminate any concavity of the electrode tip.
- TIP-TRIMMER is able to cut and grind electrodes as short as 10mm in length.
- Exact adjustment minimises consumption of tungsten electrode when grinding.
- No external or additional exhaust system is needed.
- Complies with the Regulations of the EU to ensure complete protection of the welder

Tip Trimmer tungsten grinder with integrated cutter

TIP-TRIMMER is the first wet-grinding machine with the ability both to grind and cut tungsten electrodes in the same chamber.

Wet grinding produces a polished tip with no blueing, while at the same time the hazardous dust is collected in the fluid and transferred to a replaceable waste container. No tools are needed for the easy removal of the waste container for its safe disposal. TIP-TRIMMER has been developed to meet all EU directives concerning the grinding of tungsten electrodes.

In TIP-TRIMMER the electrode is ground on the side of the diamond wheel and produces a perfectly straight longitudinal finish without any concavity of the tip.

The guide for the electrode holder can be set in three different positions on the diamond wheel and this can triple the lifetime of the wheel.

TIP-TRIMMER is easy to operate and, after setting the required angle and securing the electrode in the holder using the locking device, the electrode can now be either ground or cut in a length as short as 10 mm.

Complies with the Regulations of the EU to ensure complete protection of the welder and the environment against the hazardous grinding dust.

Precise longitudinal grinding to eliminate any concavity of the electrode tip.

TIP-TRIMMER is able to cut and grind electrodes as short as 10 mm in length.

Exact adjustment minimises consumption of tungsten electrode when grinding.

No external or additional exhaust system is needed.

* Patent pending

Technical data:

Power Supply	230 V/ 50 - 60 Hz	Electrodes:	1,0 mm to 4,0 mm
Speed:	10.000 Rpm.	Diamond wheel:	100 mm diameter
Grinding speed:	60 m/s	weight:	12,8 Kg

Accessories:

Equipment for grinding of 4,8 mm to 8,0 mm electrodes



The grinding angle is shown in the digital readout.



Unique design to enable the lifetime of the diamond wheel to be tripled.



TIP-TRIMMER is able to cut and grind electrodes as short as 10mm in length.



The waste container is easy removed from the front.



The tip is easily flattened, by setting the grinding angle at 90°.



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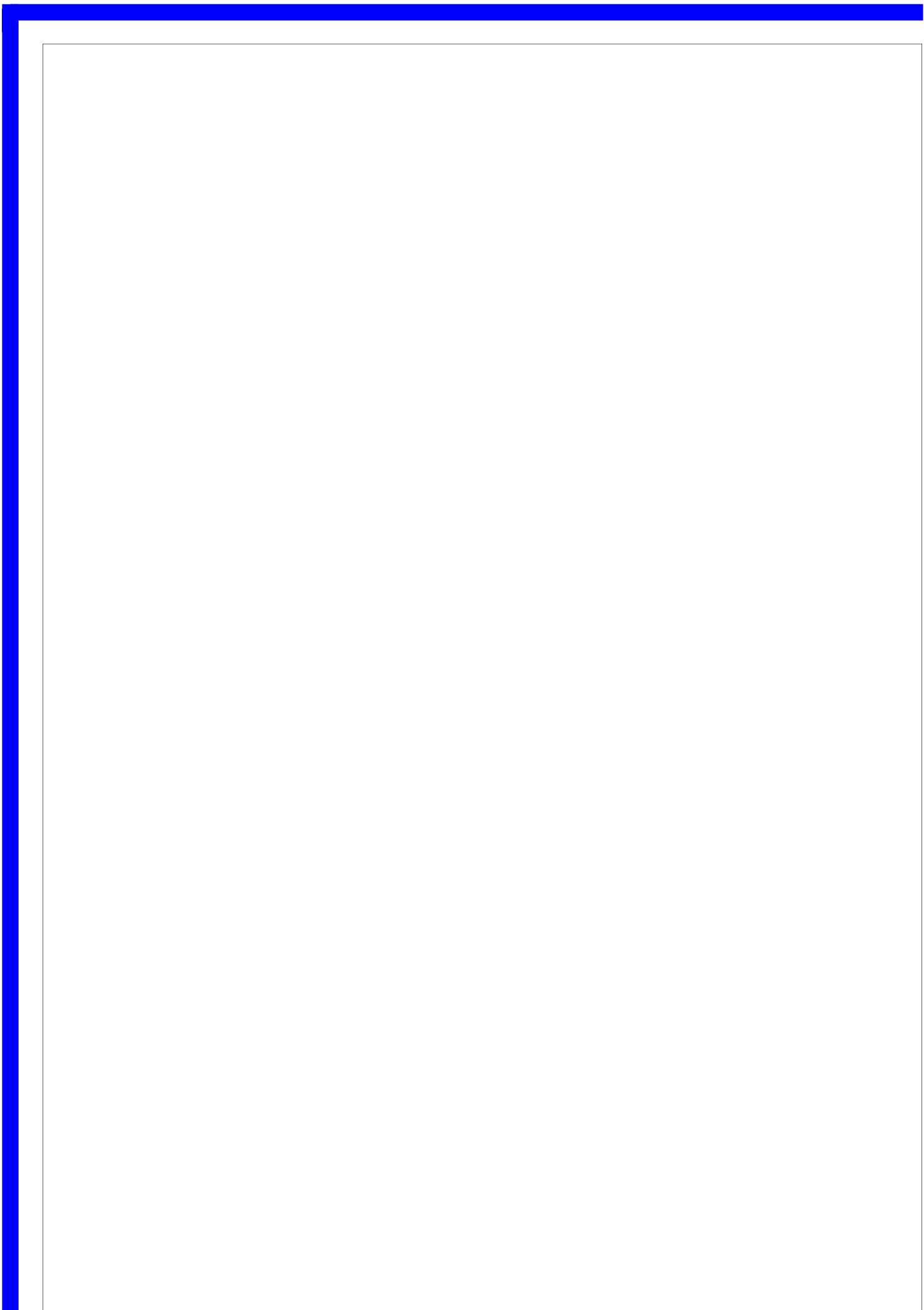
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**Conical stoppers
with or without bore hole**



SMALLEST Ø in mm.	BIGGEST Ø in mm.	HEIGHT in mm.	RUBBER	SILICON
3,5	6,5	15	X	
4	8	20	X	X
5	9	20	X	
6	10	20	X	X
9	13	20	X	X
11	15	20	X	X
12,5	16,5	20	X	
14	18	20	X	X
16	21	25	X	
17	22	25		X
17	23	30	X	
19	24	25	X	X
22	27	25	X	X
24	32	30		X
25	31	30	X	
27	34	30		X
28	35	35	X	
31	38	35	X	
32	38	30		X
34	40	30		X
34	41	35	X	
36	44	40	X	
38	45	35	X	
38	46	35		X
40	50	40		X
42	49	35	X	
46	54	40	X	
46	55	40		X
50	60	45		X
50	60	50	X	
55	66	45		X
55	65	50	X	
60	73	50		X
63	73	50	X	
65	75	55	X	
66	80	60		X
70	90	50	X	
73	87	60		X
78	92	50	X	
80	93	60		X
85	95	50	X	
87	100	65	X	
87	105	72		X
93	115	90		X
95	107	55	X	
95	125	80	X	
100	130	85	X	
105	125	50	X	
110	130	90		X
120	170	130	X	X
160	220	160	X	
200	260	160	X	





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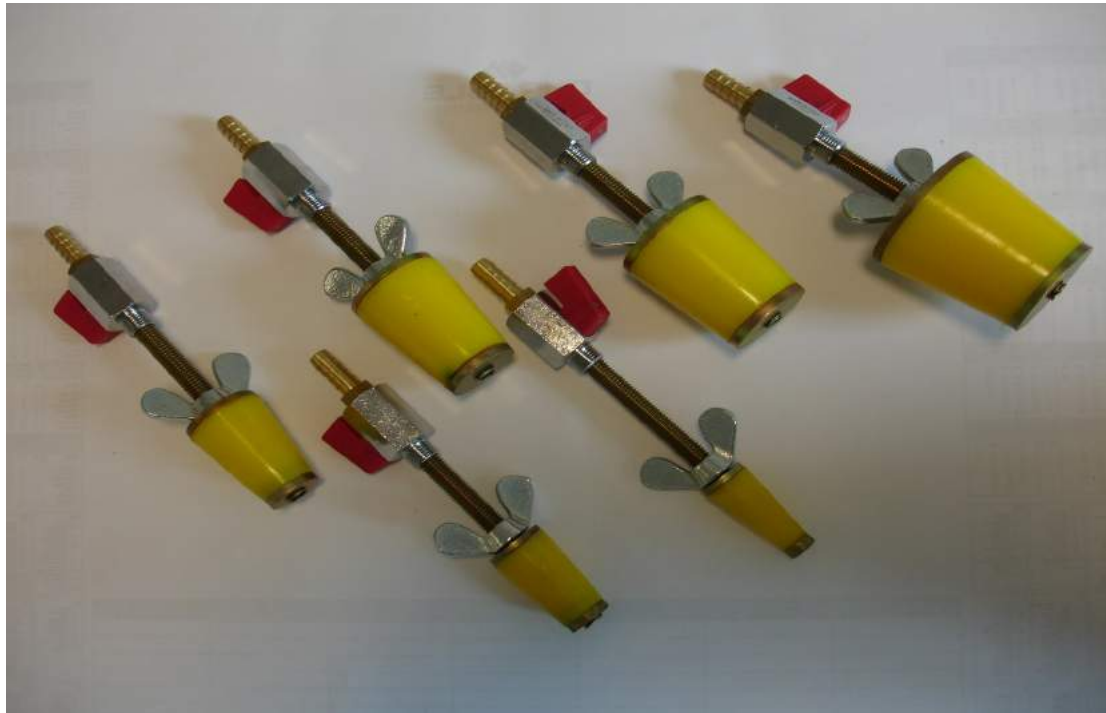
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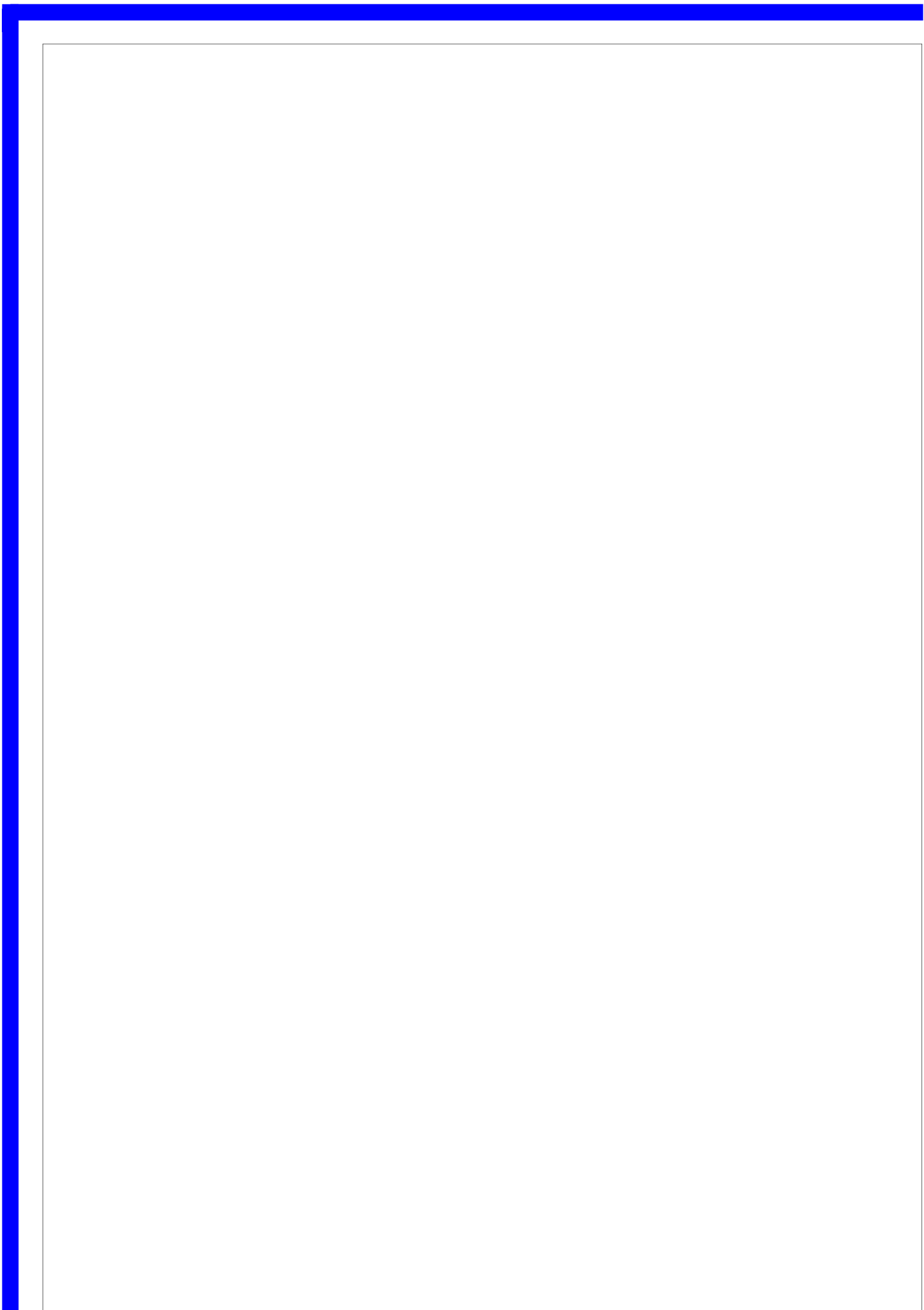
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CONICAL PIPE STOPPERS



- TEMPORARY CLOSING OF PIPELINES
- CLOSING OF PIPE FOR FILLING WITH BACKINGGAS

Measure	Range
1/2"	12 - 20 mm.
3/4"	19 - 25 mm.
1"	23 - 33 mm.
1.1/4"	31 - 41 mm.
1.1/2"	37 - 46 mm.
2"	45 - 59 mm.





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Pipe stoppers type 1020 and 1021



Stoppers for temporary closing of pipes.

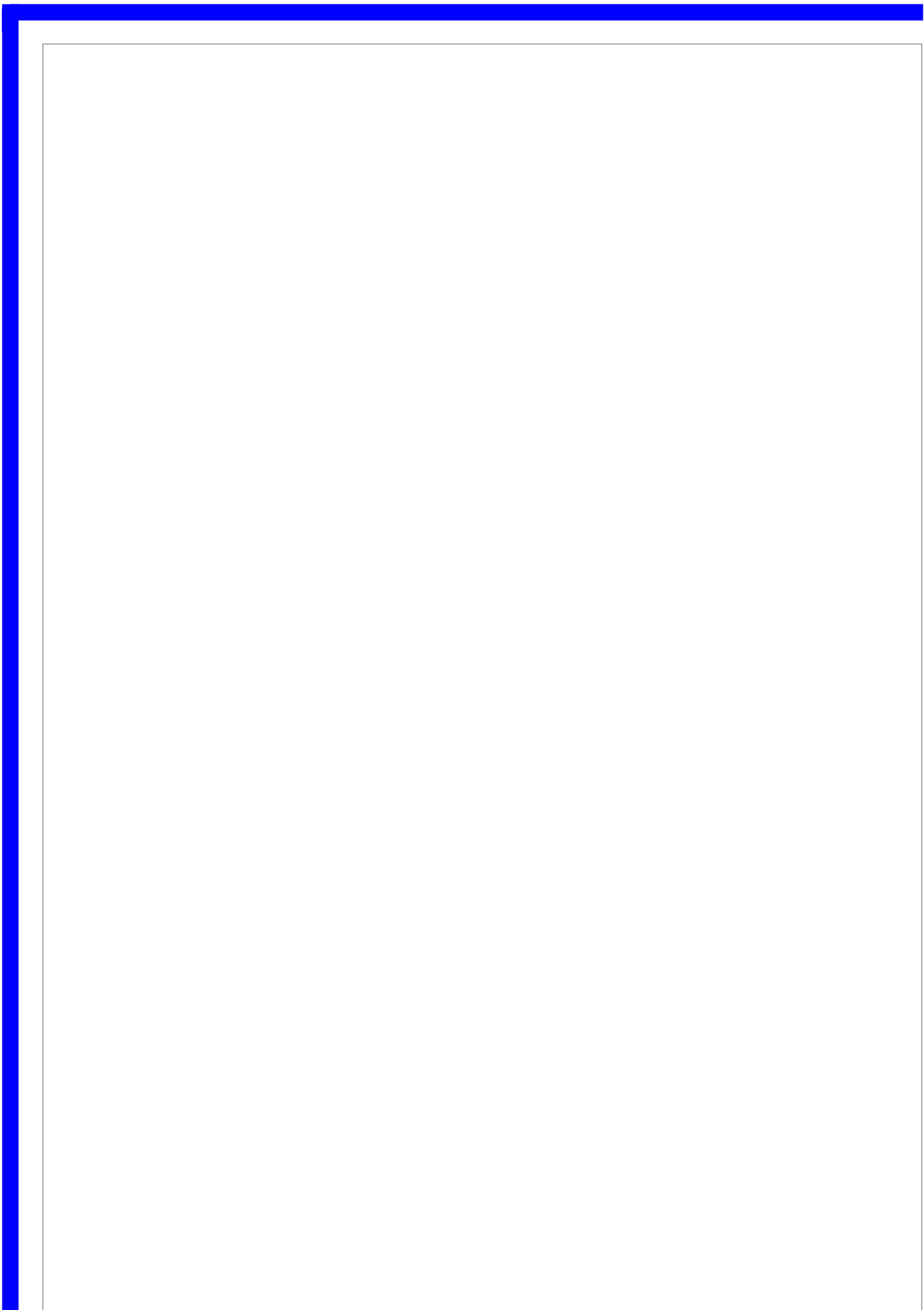
The stoppers can in general resist less pressure and should by preference be used in pressure less pipes.
The maximum testing pressure is 0,1 bar > 600 mm. and 0,3 bar < 600 mm.



Also deliverable **type 1021**.
This stopper is provided with a double rubber ring.

Nominal measure	Internal diameter minimum	Internal diameter maximum
1"	22	27
1.1/2"	36	48
2"	49	60
2.1/2"	61	75
3"	73	85
3.1/2"	84	95
4"	94	110
4.1/2"	108	120
5"	121	138
5.1/2"	134	148
6"	146	163
7"	170	195
8"	191	211
9"	213	235
10"	244	260
11"	275	305
12"	296	314
13"	315	350
14"	340	375
15"	365	400
16"	390	425

Larger on demand





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EESISEEL

INFLATABLE TUBE CLOSERS



Extreme strong, wear-resistant and multifunctional tube closers, for temporary closing of all kinds of tubes and pipes.

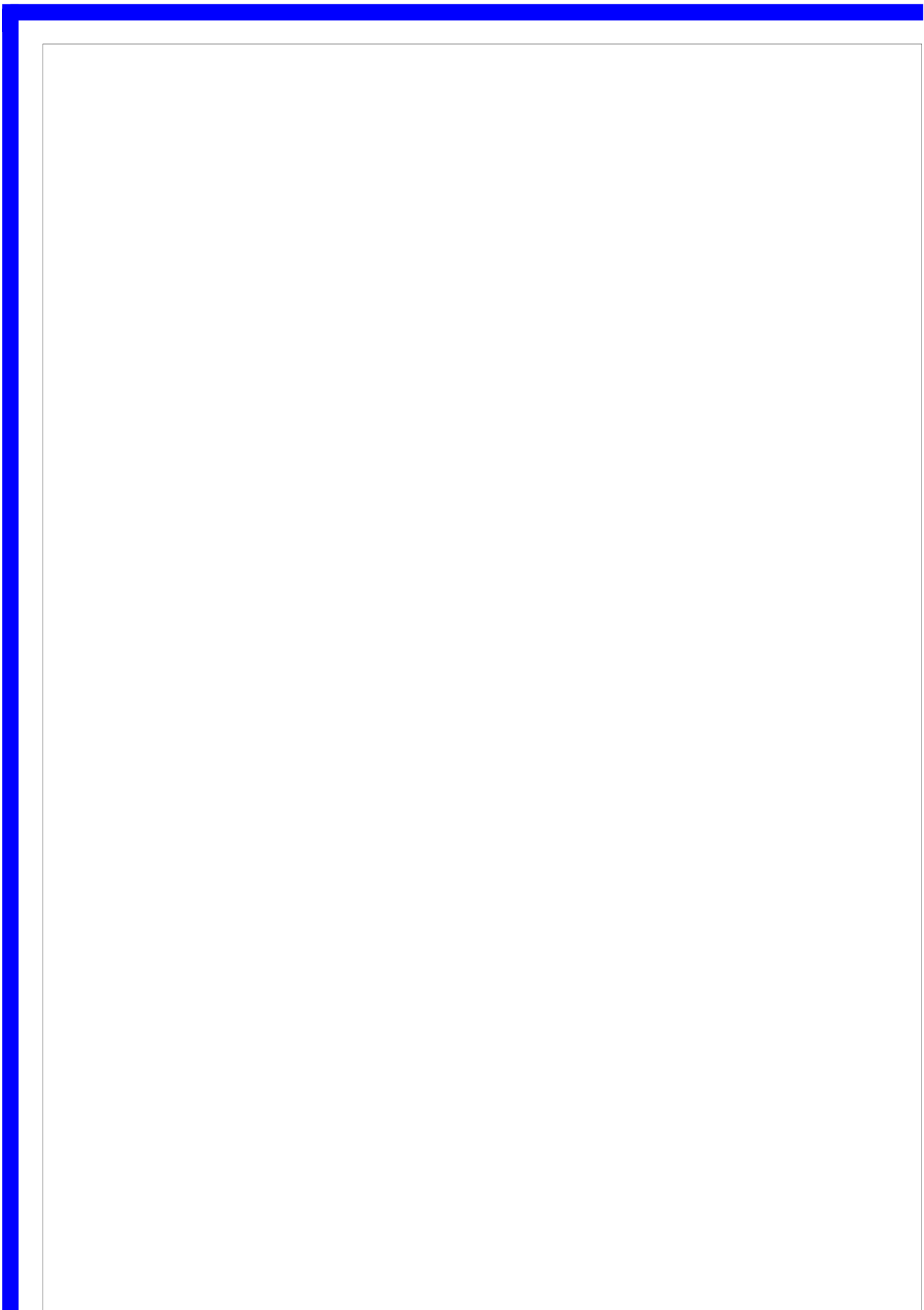
The Eesiseel is very easy to use and has a big diameter range. The Eesiseel's are obtainable in 5 different sizes, for closing of tubes with a diameter from 48 till 320 mm.

TYPE	DIAMETER
DN 50 (2")	48-72
DN 80 (3")	72-92
DN 100 (4")	92-145
DN 100 (4")**	92-145
DN 150 (6")	145-200
DN 200 (8")	200-320

** = equipped with bore through closure

Advantages & properties EESISEEL:

- Big diameter range (48 t/m 320 mm).
- Simple in use.
- Lasting and strong.
- Provided with 1,5 meter hose and air valve.
- Can be placed on difficult reachable places (through valves), in oval tubes and even in bends.
- Reusable, simple to clean and resistant against oil and greases(ask for confirmation resistance), chemicals ,hot water , etc.





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Pipe stoppers 1024

for testing under pressure of all kinds of pipes

At the threading end of the stoppers a T-joint could be placed for attaching a tap for venting the air, a manometer and a pressure hose.

After using the stoppers, the rubber seal (gas and oil resistant) will return to its original form, through which a permanent use is assured.

The stoppers can resist a pressure up to 12 bar for the small sizes.

The stoppers have to be secured for safety.

Max. pressure range:

Ø 12 - 78 mm. 12 bar

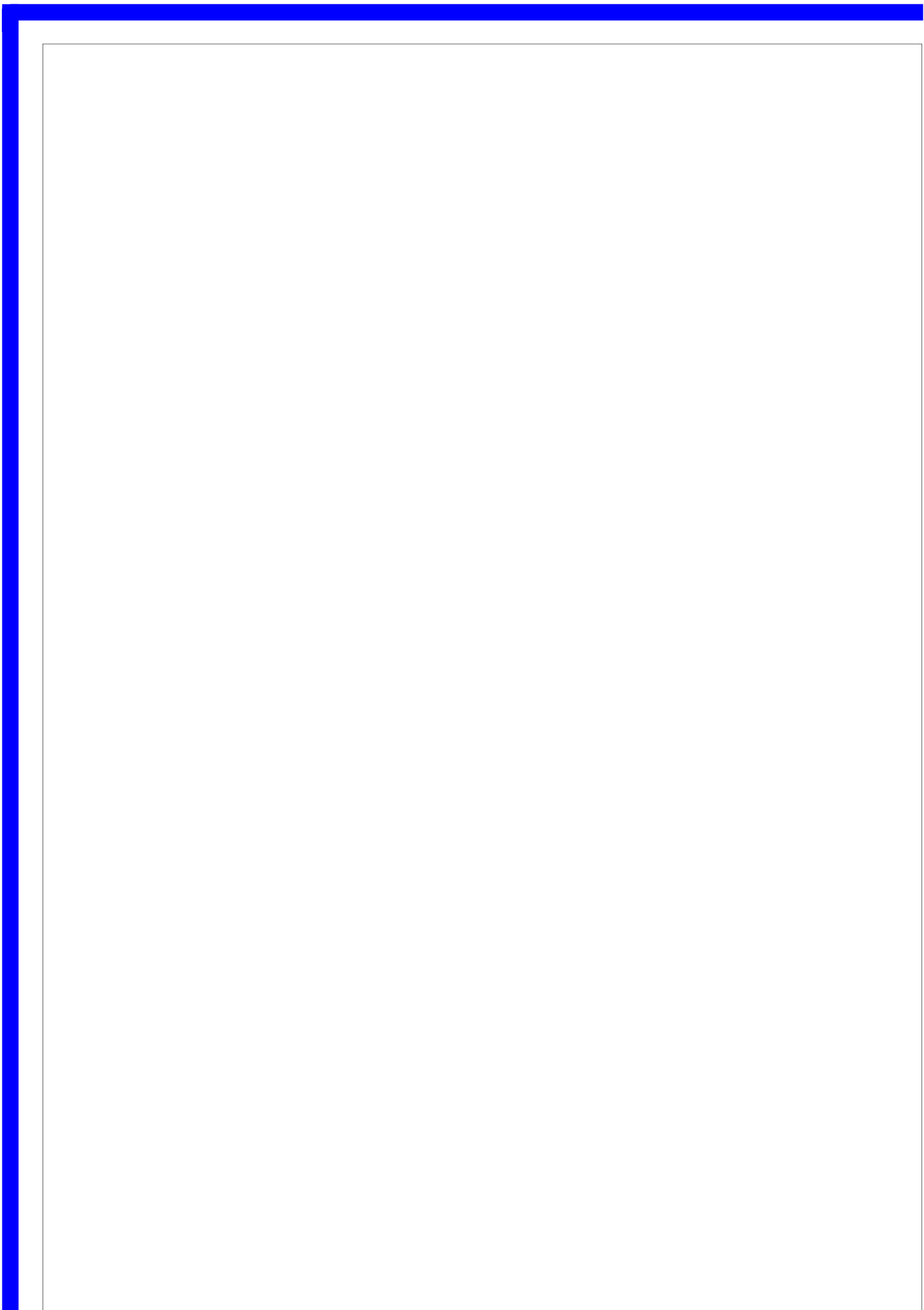
Ø 84 - 158 mm. 8 bar

Ø165 - 600 mm. 6 bar



Ø Stopper mm	Effective working range mm
12	+2
15	+2
18	+2
19	+2
20	+2
22	+2
24	+2
25	+2
26	+2
28	+2
30	+2
32	+2
34	+2
35	+3
38	+3
40	+3
42	+3
45	+3
48	+3
50	+3
53	+3
57	+3
63	+3
65	+3
69	+3
74	+4
78	+4
84	+4
94	+5
98	+5
102	+5
106	+5
115	+5
122	+5
126	+5
130	+5
140	+5
144	+5
148	+5

Larger on request.





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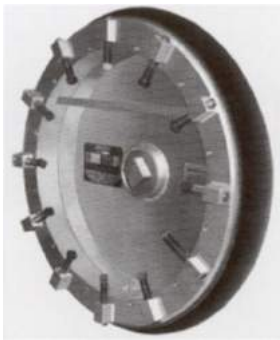
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Sealfast™ stoppers

pipestoppers provide with inflatable sealing ring

- for hydrostatic testing of pipes and pipelines
- useable for steel, cast iron, plastic and concrete pipes



Deliverable in diameters of 4" - 144" (99 - 3657 mm.)

LP model : for low pressures
mounting by inflating the seals

MP model : for high pressures
mounting by inflating the seals and
tightening the set screws



ADVANTAGES

- because the rubber seal that is double-acting, you don't need much air to inflate these are so QUICK ACTING
- **high pressures at large diameters**
- special models/executions deliverable (p.t.o.)

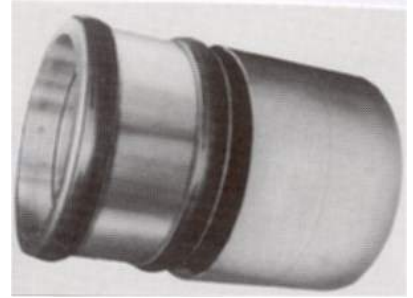
Pressure ranges

DIAMETER	LP model	MP model
4" - 20"	2,3 bar (16 p.s.i.)	ca. 10 bar (150 p.s.i.)
20" - 27"	1,7 bar (12 p.s.i.)	
28" - 36"	1,1 bar (8 p.s.i.)	
36" - 54"	on demand	ca. 7 bar (105 p.s.i.)
54" - 72"	on demand	ca. 4,2 bar (60 p.s.i.)
72" - 144"	on demand	

Sealfast™ special stoppers

JOINT TESTER

- for testing the joint of 2 pipes
- for testing the joint of a flange/pipe connection



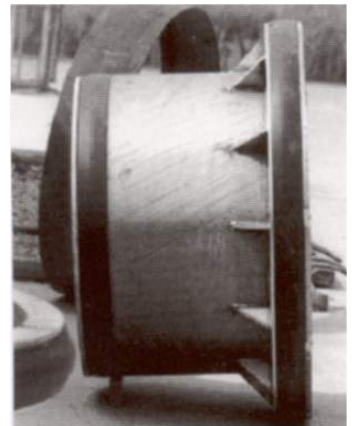
SPLIT PLUG

- for use where access to pipe is limited (manholes, manways, etc.)



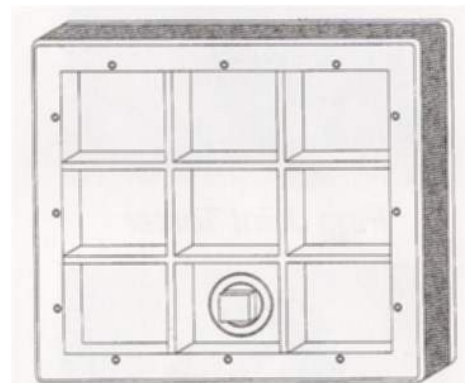
MULTI-SIZE STOPPERS

- for testing joints in tapered pipe sections or reduced pipe sections



SQUARE and IRREGULARLY SHAPED PLUGS

- e.g. square or apart shaped constructions.





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QUICK ACTION STOPPERS

RANGE DN 18 - DN 65



- fast testing till 10 Bar • safe and quick
- no tools needed • with handy excenterclamp

The Wortelboer quick action stoppers can be placed with its convenient eccentric clamping quickly and without additional tools in the pipe. By turning the handle 90° the rubber plug will expand in the pipe. In the same way, the stopper can be quickly removed from the pipe.

The maximum pressure is 10 Bar and the stoppers are available with a clamping range between DN18 and DN65.



For

- heat exchanger manufacturing • offshore constructions
- Apparatus manufacture • equipment constructions
- shipbuilding • machine construction • pipeline construction

Technical Specifications Quick Action Stoppers

Quick action stoppers without pass:	Min. Ø I.D. (mm)	Max. Ø I.D. (mm)	Max. pressure*
DN 20	18	25	10 Bar
DN 25	23	30	10 Bar
DN 30	28	35	10 Bar
DN 35	33	40	10 Bar
DN 40	38	45	10 Bar
DN 45	48	55	10 Bar
DN 50	58	65	10 Bar
DN 65	60	70	10 Bar
Quick action stoppers with pass:			
DN 18	16	23	10 Bar
DN 20	18	25	10 Bar
DN 25	23	30	10 Bar
DN 30	28	35	10 Bar
DN 35	33	40	10 Bar
DN 40	38	45	10 Bar
DN 45	48	55	10 Bar
DN 50	58	65	10 Bar
DN 65	60	70	10 Bar



* secured to avoid moving out of the pipe.

The quick action stopper is suitable for (slightly polluted) water and non-aggressive media which do not affect the rubber plug.

The stopper clamps at the inside of the pipe.
The exact clamping length varies per stopper size.

In order to guarantee the clamping force of the stopper, the internal diameter should not be too large compared to the clamping range.
The rubber plug may come out when it is too small.
Please indicate the internal diameter when ordering.

The stoppers must be secured for safety.





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Pipe stoppers type STA 360

Range DN 25 - DN 800

Testing pressure up to 100 bar

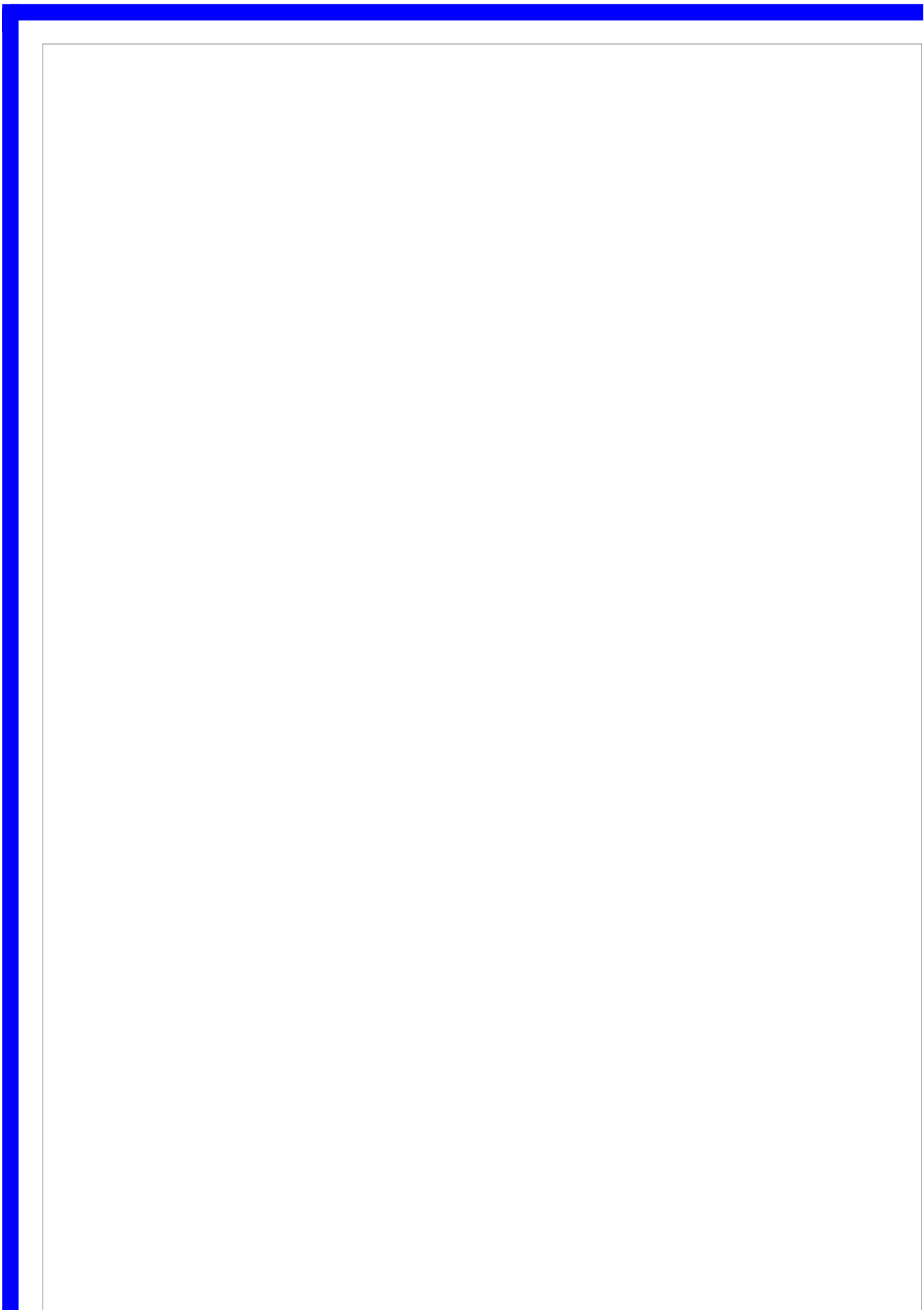


DN	Max. pressure	Range I.D.
12	100 bar	12 - 14 mm.
14	100 bar	14 - 16 mm.
20	100 bar	20 - 25 mm.
25	100 bar	25 - 30 mm.
30	100 bar	30 - 35 mm.
35	100 bar	35 - 40 mm.
40	100 bar	40 - 45 mm.
50	100 bar	50 - 55 mm.
60	100 bar	60 - 65 mm.
65	100 bar	65 - 70 mm.
70	100 bar	70 - 75 mm.
75	100 bar	75 - 80 mm.
80	100 bar	76 - 92 mm.
90	100 bar	86 - 106 mm.
100	100 bar	96 - 112 mm.
110	95 bar	106 - 122 mm.
125	92 bar	121 - 137 mm.
140	90 bar	136 - 156 mm.

DN	Max. pressure	Range I.D.
150	90 bar	146 - 162 mm.
160	88 bar	156 - 172 mm.
175	85 bar	171 - 187 mm.
190	80 bar	186 - 206 mm.
200	80 bar	196 - 212 mm.
210	77 bar	206 - 222 mm.
225	75 bar	221 - 237 mm.
250	70 bar	246 - 263 mm.
260	65 bar	256 - 273 mm.
275	60 bar	271 - 288 mm.
300	60 bar	296 - 313 mm.
310	57 bar	306 - 323 mm.
350	50 bar	342 - 370 mm.
400	35 bar	392 - 420 mm.
450	30 bar	446 - 463 mm.
500	30 bar	492 - 520 mm.
600	25 bar	592 - 620 mm.

For extra safety the stopper has to be secured in the pipe
Only hydrostatic testing!

Larger sizes on request



WBT STOP Typ C and D

Mechanical stop for pressure range till 206 Bar



- steel grip collets • for different test fluids
- available in different sizes • neoprene seals

The WBT high pressure stops are available for test pressures till 206 Bar depending on the diameter.

On request custom made (bigger) stops are available according to the same design.

The stop is held in place by means of steel grip collets which clamp against the wall on the inside of the pipe once the bolt of the stop is tightened.

At the same time the neoprene seal is compressed, it provides the necessary sealing.



for

- heat exchanger manufacturing • offshore constructions
- apparatus manufacture • equipment constructions
- shipbuilding • machine construction • pipeline construction

technical specifications WBT stops



model	WBT typ C	WBT typ D, 1" till 2 1/2"	WBT typ D, 3" till 12"
maximum test pressure	206 Bar ⁽¹⁾	206 Bar ⁽¹⁾	206 Bar ⁽¹⁾
test fluid	water or oil ⁽²⁾	water or oil ⁽²⁾	water or oil ⁽²⁾
clamping reach I.D.	11,65 till 25,4 mm ⁽³⁾	1" till 2 1/2" ⁽³⁾	3" till 12" ⁽³⁾
I.D. tolerances	standard pipe tolerances	standard pipe tolerances	standard pipe tolerances
clamping and sealing	internal	internal	internal
clamping length	depending on size ⁽⁴⁾	depending on size ⁽⁴⁾	depending on size ⁽⁴⁾
material body	galvanized steel	hardened steel	hardened steel
material collet grips	galvanized steel	hardened steel	hardened steel
material seal	Neoprene	Neoprene	Neoprene

⁽¹⁾ Maximum test pressure depends on the diameter.

⁽²⁾ Other test fluids on request.

⁽³⁾ Each stopper from the WBT range has its own specific clamping reach. That means that there is one pipe stop needed for every single pipe size.

⁽⁴⁾ The exact clamping length depends on the type and size.



The WBT stops have a hollow thread spindle and axis for filling and relieving a pipe system.

WBT type D stops can be supplied till 30". Pipe stops in standard sizes (schedule 40 and schedule 80) have short delivery times.

The WBT type C stops, with O-ring seal, are specially developed for pipes and tubes with a smooth internal surface.

Big size and custom made stops are available on request (see photos).



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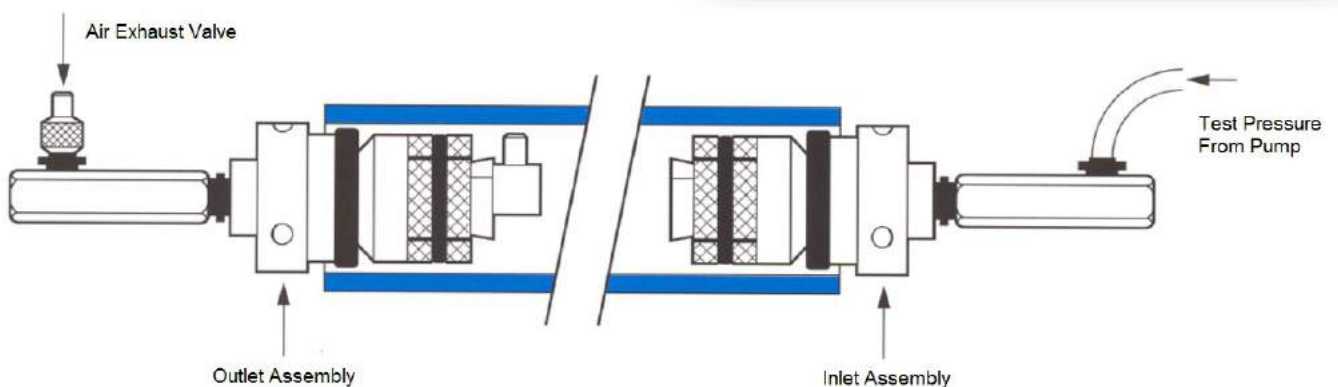
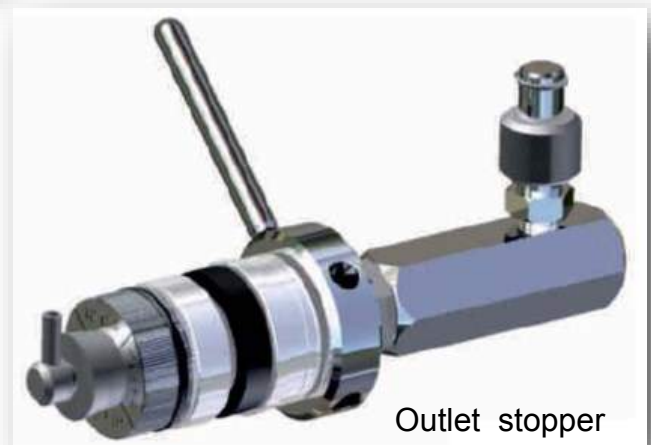
E-mail : info@wortelboer.ws

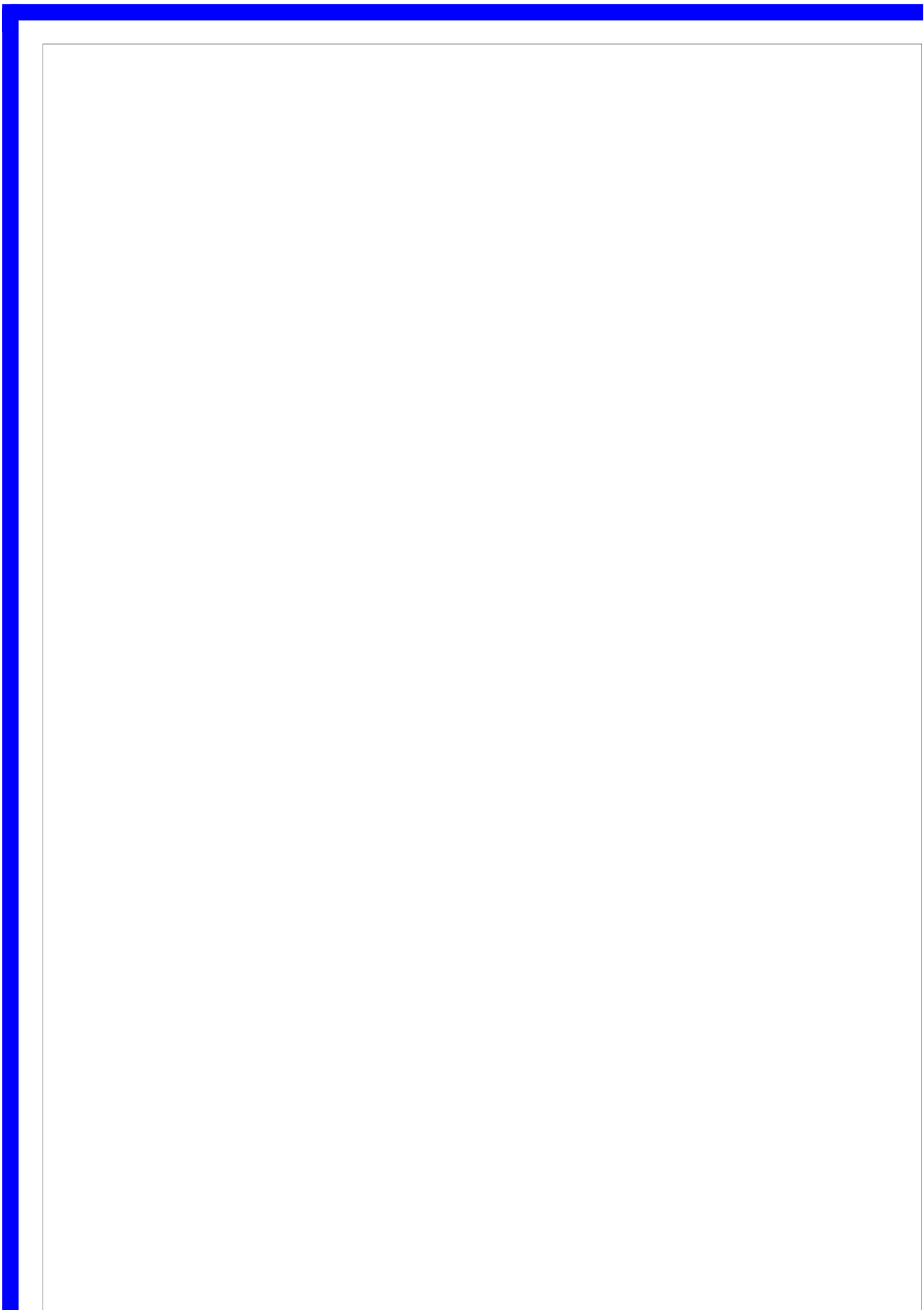
High Pressure Pipestoppers typ R Ø 9,5 - 311 mm I.D. Pressure range till 550 bar

For hydrostatic testing from pipeline systems.



Maximum test pressure varies per diameter and they are available on request.







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LP TESTER typ LP en LP series H

Hydrostatic stoppers for pressure range till 345 Bar



- **Patented.**
- **For different test fluids and gases.**
- **Available in different sizes.**
- **Safe and quick.**

By means of the snap-on connection these patented stoppers, pipe line systems can be tested safely.

The inner safety grip and the o-ring seal guarantee a constant clamping during every test cycle.

These stoppers are available for different test fluids and gases.

The short length outside collet gripping comes in handy for short straight pipe ends.

In limited working spaces, like with hydraulic systems or fuel pipe lines, these stoppers are easy to place and remove.

The stoppers can be supplied in imperial and metric sizes.

Th. Wortelboer BV also has stoppers for various other applications and pressure levels.

Technical specifications LP testers

Typ	LP-1	LP-2	LP-3	LP-4	LP-5	LP-6	LP-7	LP-8
Clamping reach O.D. (mm)	3,2 - 12,7 (¹)	12,7 - 25,4 (¹)	25,4 - 38,1 (¹)	38,1 - 50,8 (¹)	50,8 - 76,2 (¹)	76,2 - 101,60 (¹)	101,6 - 141,3 (¹)	141,3 - 168,3 (¹)
Total length	103 mm	107 mm	125 mm	127 mm	126 mm	144 mm	143 mm	129 mm
Diameter body	32 mm	45 mm	61 mm	80 mm	105 mm	140 mm	216 mm	254 mm
Minimal opening	3,2 mm	6,4 mm	19,1 mm	19,1 mm	19,1 mm	25,4 mm	29,0 mm	29,0 mm
Standard connection	1/4" NPT female	3/8" NPT female	3/4" NPT female	3/4" NPT female	3/4" NPT female	1" NPT female	1" NPT female	1" NPT female
Clamping length	19,1 mm	19,1 mm	27,2 mm	27,1 mm	27,6 mm	36,4 mm	57,2 mm	60,3 mm
Material body	Heat-treated, stainless steel	Heat-treated, stainless steel	Heat-treated, stainless steel	Heat-treated, stainless steel	Heat-treated, stainless steel	Heat-treated, stainless steel	Heat-treated, stainless steel	Heat-treated, stainless steel
Testmedium	Water, oil and gases (²)	Water, oil and gases (²)	Water, oil and gases (²)	Water, oil and gases (²)	Water, oil and gases (²)	Water, oil and gases (²)	Water, oil and gases (²)	Water, oil and gases (²)
Maximum test pressure	345 bar	345 bar	345 bar	345 bar	345 bar	345 bar	345 bar	345 bar

(¹) Per model different bodies are supplied with each a specific clamping reach. Per single pipe size 1 body and 1 set of collets is required. With different collets one body (within the given clamping reach) can suit different pipe sizes.

(²) Other test fluids at request.

The LP-TESTER Series hydrostatic tools are specially designed to grip and provide positive sealing for plain-end tubing. Having a safety spring pregrip, their clamping mechanisms assure a constant, positive grip during any work or operation cycle in the field or factory.

The normally closed gripping collets can be released manually with a lever or air actuated. These tools offer fast, snap-on coupling for hydrostatic test, air under water testing, and cleaning applications.

In addition, they can be used for production testing of tubes, tube assemblies, and systems. The tools can be used in both manual and automatic applications.



The Model LP's short, outside, minimal marking collet grip is very helpful for applications with short tube ends in restricted areas such as field testing of heating and cooling systems.

The tools can also be used for leak testing, purging, and refrigerant charging.

The Model LP Series tools handle standard tube from 0.187" to 4.000" diameter.

Special sizes / pressures will be considered upon request.

Operation: Connect the tool to the pressure line. Attach the tool to the tube by pressing its handle or apply air pressure (80 PSI for the air piloted version) to retract collets. Push the tube into the tool until pressed against the tube stop.

This instantaneously provides a complete seal.

When the tool's handle is released, collets are engaged and ready.

Apply test pressure to desired level; do not exceed maximum operation pressure.

To disconnect after operation cycles, press handle or apply air pressure to release collets and pull to remove tool.



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HP TESTER typ 64, 264, 364 and 464

Hydrostatic pipe stoppers for pressure range till 2758 Bar



- **Patented.**
- **For different test fluids and gases.**
- **Available in different sizes.**
- **Safe and quick.**

By means of the snap-on connection these patented stoppers, pipe line systems can be tested safely.

The inner safety grip and the o-ring seal guarantee a constant clamping during every test cycle.

These stoppers are available for different test fluids and gases.

The short length outside collet gripping comes in handy for short straight pipe ends.

In limited working spaces, like with hydraulic systems or fuel pipe lines, these stoppers are easy to place and remove.

The stoppers can be supplied in imperial and metric sizes.

Th. Wortelboer BV also has stoppers for various other applications and pressure levels.

Technical specifications HP testers



Typ	HP-64	HP-264	HP-364	HP-464
Maximum test pressure	10,000 psi (689 bar)	20,000 psi (1379 bar)	30,000 psi (2068 bar)	40,000 psi (2758 bar)
Temperature	0° - 49° Celcius	0° - 49° Celcius	0° - 49° Celcius	0° - 49° Celcius
Testfluid	Water, oil and gases ⁽¹⁾	Water, oil and gases ⁽¹⁾	Water, oil and gases ⁽¹⁾	Water, oil and gases ⁽¹⁾
Clamping reach O.D. (mm)	2,0 - 42,2 ⁽²⁾ (7 body's)	3,2 - 45,2 ⁽²⁾ (10 body's)	6,0 - 42,1 ⁽²⁾ (10 body's)	6,0 - 20,0 ⁽²⁾ (5 body's)
Clamping and sealing	External ⁽³⁾	External ⁽³⁾	External ⁽³⁾	External ⁽³⁾
O.D. tolerances	Standard pipe tolerances	Standard pipe tolerances	Standard pipe tolerances	Standard pipe tolerances
Minimal opening	1,6 - 17,3 mm	3,2 - 8,7 mm	3,2 - 11,1 mm	3,2 - 4,8 mm
Clamping length	25,7 - 31,8 mm ⁽⁴⁾	25,7 - 42,0 mm ⁽⁴⁾	32,0 - 47,5 mm ⁽⁴⁾	32,0 - 35,6 mm ⁽⁴⁾
Material body	Heat-treated, stainless steel	Heat-treated, stainless steel	Heat-treated, stainless steel	Heat-treated, stainless steel
Diameter body	28 - 76 mm	37 - 102 mm	32 - 108 mm	32 - 60,5 mm
Total length	121 - 155 mm	150 - 156 mm	164 - 240 mm	163 - 170 mm

⁽¹⁾ Other test fluids at request.

⁽²⁾ Per model different bodies are supplied with each a specific clamping reach. Per single pipe size 1 body and 1 set of collets is required. With different collets one body (within the given clamping reach) can suit different pipe sizes.

⁽³⁾ The stopper clamp on the outside of the pipe. The clamping system of the stopper is normally closed. Preclamping is done manual. During pressure building up the clamping force increases along with the test pressure. The seal between stop and pipe is on the outside of the pipe.

⁽⁴⁾ The exact minimum required clamping length differs per body.

The patented HP stoppers have some distinctive advances like the high filling speed that shortens the test cycle considerably. This because of the large bore. Even with very high test pressures the safety is guaranteed because of the hydrostatic design.

The stopper leave minimal marks on the pipe and they prevent the pipe from deforming. Besides that, the special collet clamping system only needs a very short clamping length.

Optional an air outlet valve and different seals for different fluids are available.

Advantage of these stoppers is that ONLY THE O-RING SEAL is the main spare.



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E-series pressure pumps with single plunger



40/14



Single Plunger Pumps				
Type	20/50/50	40/14	50/30/12	50/30/25
Test pressure (Bar)	20	40	50	50
Volume (cm ³ /stroke)	88	60	28	28
Stroke length (mm)	45	400	40	40
Plunger Ø mm	50	14	30	30
Measurement reservoir (mm)	490*330*330		430*190*160	450*250*250
Volume reservoir (Ltr.)	50		12	25
Weight (Kg)	18	3,6	6,5	8,5
Pressure gauge	Ø 80 - 40 bar	Ø 63 - 60 bar	Ø 63 - 60 bar	Ø 63 - 60 bar
HP-hose (mtr)	3	2	2	3
Test medium: water, water/oil emulsion or oil with a low viscosity				

D-series pressure pumps with double plunger



Double Plunger Pumps				
Type	D50	D100	D200	D320
Testing pressure (bar)	50	100	200	320
Plunger Ø mm (low pressure)	50	50	50	50
Plunger Ø mm (high pressure)	30	22	14	11
Stroke length (mm)	45	45	45	45
Volume stroke (cm ³ /stroke low pressure)	88	88	88	88
Volume stroke (cm ³ /stroke high pressure)	31	17	7	4,2
Measurements reservoir in mm	490*330*330	490*330*330	490*330*330	490*330*330
Weight (kg)	18	18	18	18
Pressure gauge	Ø 80 - 60 bar	Ø 80 - 160 bar	Ø 80 - 250 bar	Ø 80 - 400 bar
HP hose (Mtr.)	3	2	2	3
Test medium: water, water/oil emulsion or oil with a low viscosity				



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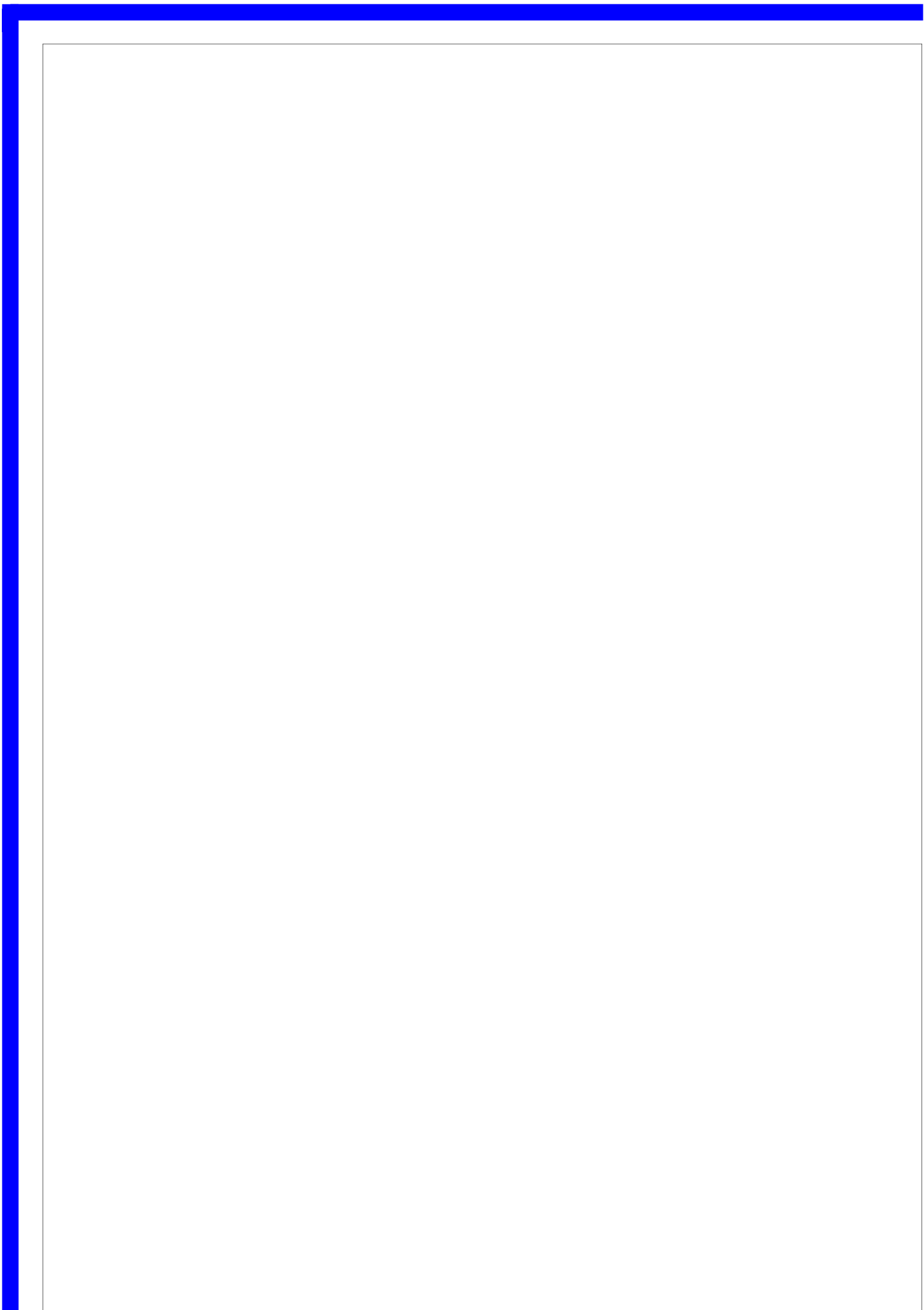
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Manual Pressure pumps

Pressure range 30 till 1000 bar



	UX 60	HP 220	HP 500	HP 32/8
Test pressure	60 bar	100 bar	200 bar	1000 bar
Volume	10 cm ³	13 cm ³	75/7,5 cm ³	28/1,5 cm ³
Plunjer	Ø20 mm.	Ø22 mm.	Ø50/16 mm.	Ø32/8 mm.
Size reservoir in mm.	500x180x160	430x310x330	430x310x330	480x330x490
Weight	6,5 kg.	20 kg.	18 kg.	38 kg.
Testmedium : water, water / oil emulsion or oil with a low viscosity				





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ELECTRIC DRIVEN HIGH PRESSURE PUMPS



Model 50/10 Digital

This stepless adjustable 3-step piston pump can be used for all testing pressures from 0 resp. 2 Bar. Through the high flow, is the pump also usable for larger vessels / exchangers as well as pipeline systems. This pump is standard executed with an adjustable over-pressure relief valve. A 1/2" connection, for e.g. a recorder, is included. Protection-frame and watertank are made of Stainless Steel.

Event. options:

- automatic filling
- protection against dry-running
- adjustable manometer with shutdown
- wheelset for making the pump mobile of pumps with tank of 50 ltr.

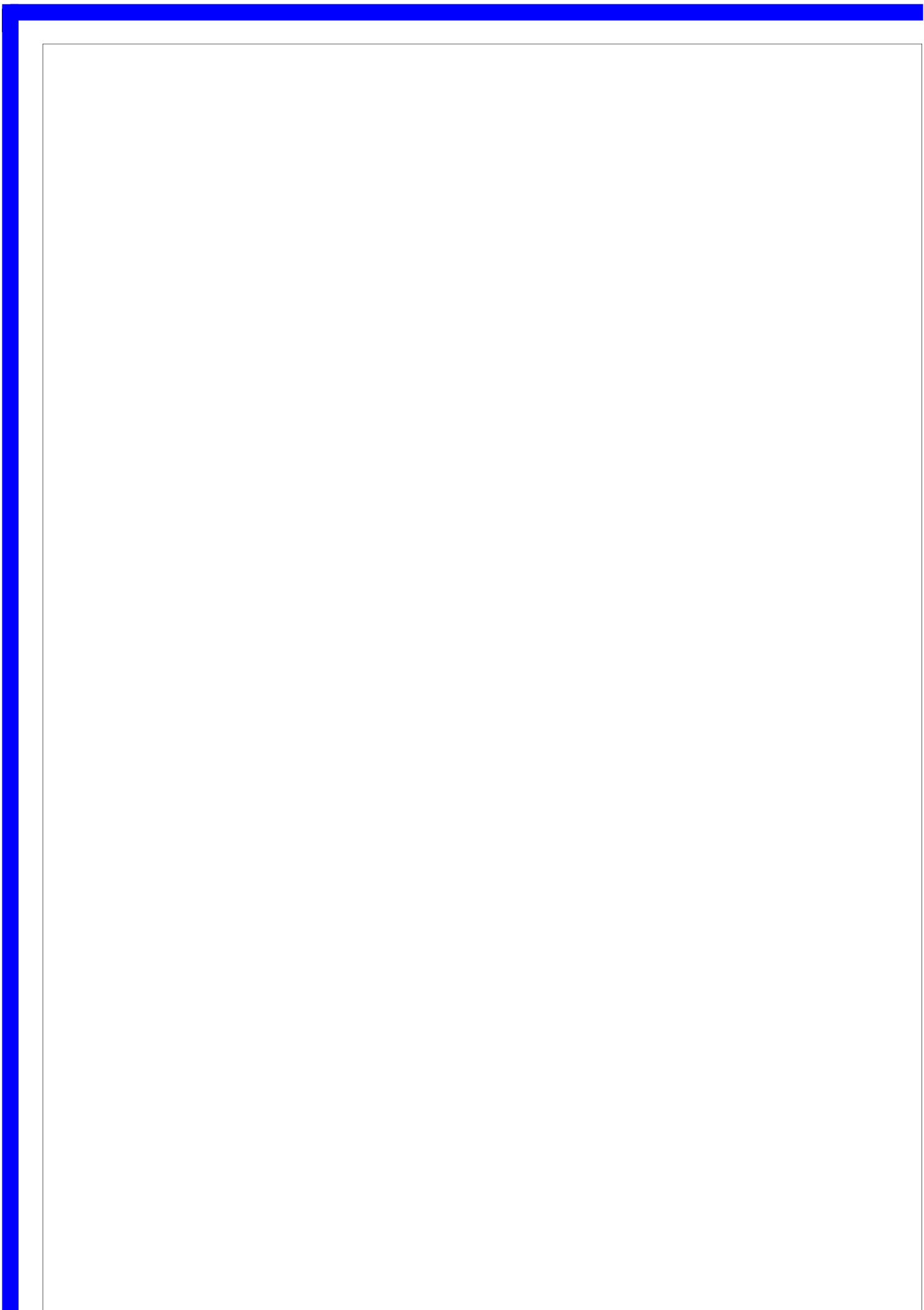
DIGITAL executions has extra:

Digital manometer and programmable, automatic shutdown when reaching of the adjusted test-pressure.



Model 120/11 and 230/6

Type	MP-50/10	MP-120/11	MP-230/6
Flow	10 Ltr. / min.	11 Ltr. / min.	6 Ltr. / min.
Max. test pressure	0 - 50 Bar	2 - 120 Bar	2 - 230 Bar
Manometer	Ø 100 mm. till 60 Bar	Ø 100 mm. till 160 Bar	Ø 100 mm. till 250 Bar
Pressure hose	900 bar - L=3 mtr.	900 bar - L=3 mtr.	900 bar - L=3 mtr.
Max. watertemperature	60° C	60° C	60° C
Tank volume	20 Ltr.	50 Ltr.	50 Ltr.
Dimensions	50 x 50 x 30 cms.	60 x 72 x 38 cms.	60 x 72 x 38 cms.
Motor	1,6 kW - 230V	2,2 kW - 230V	2,2 kW - 230V
Weight	31 Kgs.	50 Kgs.	50 Kgs.





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Motor- Prüfpumpen



EP 601 W/100
EP 601 D/200

Verwendungszweck

Die Pumpenaggregate EP 601 W/100, EP 601 D/200 und EP 602 D/350 sind elektromotor-betriebene Prüfpumpen für leichtere Einsatzfälle beim Abpressen von Rohrleitungen, Behältern u. ä. Das Pumpenaggregat VP 601/200 ist eine mit einem Benzinmotor ausgerüstete Prüfpumpe. Als Prüfmedien sind Wasser und Hydrauliköl verwendbar. Kleine Prüfkörper können direkt abgepreßt werden, bei größeren Volumina empfehlen wir eine Vorfüllung.

Motor-driven test pumps



VP 601/200

Application

The Pump Units EP 601 W/100, EP 601 D/200 and EP 602 D/350 are powered with electric motors. These units are mainly used for pressure testing of pipelines, tubes, tanks or similar products. The Pump Units VP 601/200 are powered with Gasoline engines. As testing medium water or hydraulic oil can be applied. Small test pieces may be filled and pressurized simultaneously. For larger volumes we recommend prefiling the test piece from the water mains before pressure testing.

Moto-pompe d'épreuve



EP 602 D/350

Application

Les agrégats EP 601 W/100, EP 601 D/200 et EP 602 D/350 sont des pompes d'épreuve entraînées par un moteur électrique, destinées à l'épreuve de tuyauteries, réservoirs, etc. L'agrégat VP 601 /200 est une pompe d'épreuve entraînée par un moteur à essence. Comme liquide d'épreuve, on peut utiliser de l'eau ou de l'huile hydraulique. L'épreuve de petits récipients peut se faire directement, pour des volumes plus grands, nous recommandons un préremplissage.

Sonderzubehör Accessoires available Accessoires spéciaux	EP 601 W/100 EP 601 D/200	VP 601/200	EP 602 D/350
Zulaufschlauch DN 12 x 3 m Suction hose complete Flexible de refoulement	■	■	■
Druckschlauch DN 10 / PN 375 / 5 m inclusive Einschraubstutzen G 1/2 A High pressure hose + nipple Flexible à haute pression + nipple			■
Druckschlauch DN 10 x 2 m inclusive Einschraubstutzen G 1/2 A High pressure hose + nipple Flexible à haute pression + nipple	■	■	
Sicherheits-Manometer Pressure gauge Manomètre de sûreté	0 - 250 bar	■	■
	0 - 160 bar	■	■
	0 - 100 bar	■	■
	0 - 60 bar	■	■
	0 - 40 bar	■	■
	0 - 25 bar	■	■
	0 - 16 bar	■	■

Motor-Prüfpumpen

Motor-driven test pumps

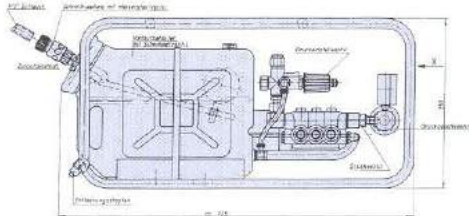
Moto-pompe d'épreuve

Maße und Gewichte

Dimensions and weights

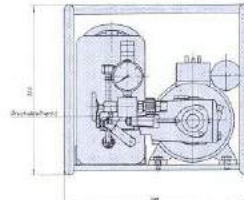
Dimensions et poids

EP 601 W/100, EP 601 D/200



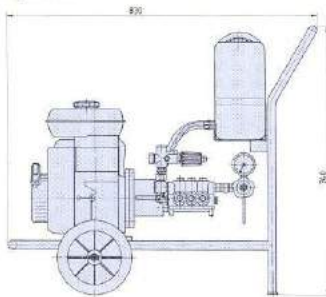
Zeichnungs-Nr. C 178 311

Drawing no. C 178 311



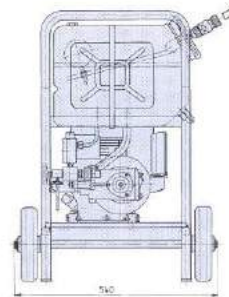
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VP 601/200



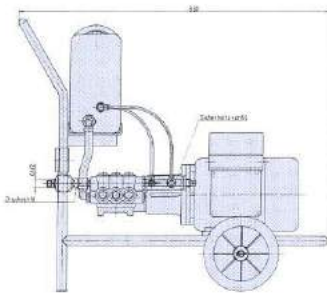
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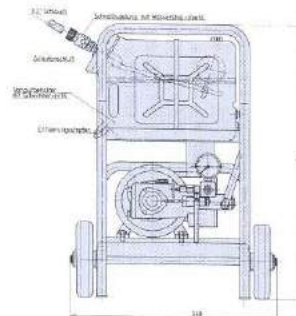
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EP 602 D/350



Zeichnungs-Nr. B 187 464

Drawing no. B 187 464



Plan no. B 187 464

Technische Daten

Technical Data

Caractéristique techniques

Aggregat-Typ	Pump Unit / Type	Aggrégat-Type		EP 601 W/100 EP 601 D/200	VP 601/200	EP 602 D/350
Prüfdrücke	Test Pressures	Pression d'épreuve	bar	2 - 100 / 2 - 200	2 - 200	5 - 350*
Fördermenge	Capacity	Débit	l / min	5	5	5
Pumpendrehzahl	Pump Speed	Vitesse pompe	min ⁻¹	1415	1500	1420
Motordrehzahl	Motor Speed	Vitesse du moteur	min ⁻¹	1415	3000	1420
Motorleistung	Motor Power	Puissance moteur	kW	1,1 / 1,5	2,6	3,0
Spannung / Frequenz	Voltage / Frequency	Tension fréquence	V / Hz	220/50 ~ / 380/50/3	-	380/50/3
Nennstrom	Rated Current	Courant nominal	A	7,3 / 3,6	-	6,8
erforderliche Sicherung	Fuse required	Fusible requis	A	16 GS / 6 GS	-	16 T
Betriebstemperatur	Operating Temperature	Température de service	°C	max. 40	max. 40	max. 40
Nettogewicht	Net Weight	Poids net:	kg	34 / 40	38	65

* Drücke zwischen 160 und 350 bar nur für intermittierenden Einsatz.
Änderungen im Sinne der technischen Weiterentwicklung vorbehalten.

* Pressures between 160 and 350 bar on intermittent service only.
Subject to alteration without notice.

* Les pressions entre 160 et 350 bar ne sont possible qu'à courte durée.
Construction sans engagement sous réserve de modification.



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High pressure powerpack

Max. testing up to 3650 bar / 52.200 PSI



The portable powerpack DPS / WPS is a well-proven self-contained and air driven unit, designed to pressurize valves, hoses, piping vessels, safety valves and wellhead equipment. It can also be used to provide hydraulic power for operating such components as cylinders, presses, rams, jacks, bolt tensioners and actuators.

- Model DPS operates from an integral reservoir

- Model WPS operates with a direct water feed which can be connected to a mains water supply

Both units are available in 10 pressure ranges as standard in either a single-acting or double-acting pump configuration. In addition, the units are available with a chart recorder. The resultant chart may be used as a test certificate.

Operation

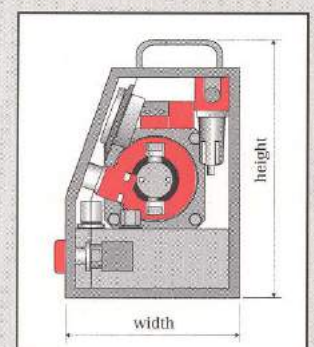
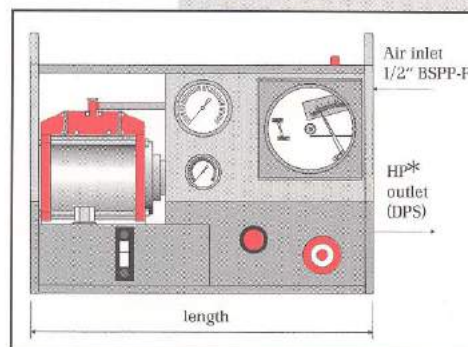
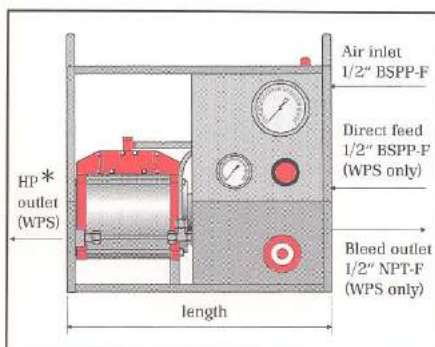
Output-pressure control is achieved by regulating the air-supply pressure, using the air regulator provided. When the desired pressure is reached, the air-driven pump will automatically stop, thus requiring no power to maintain the pressure. The output pressure is indicated by the test gauge and recorder (option). Pressure is released by operating the bleed valve. The test media employed can be water, oil or an emulsion of both.

WPS/DPS	Model	Output pressure (bar / psi)	Flow (ltr/min)		Recorder (optional) -R (hrs)	Indicator ranges		HP Outlet connection	Options
			-1	-2		-B (bar)	-P (psi)		
WPS/DPS	10	70 / 1050	17.9	34.7	0 = 1/4 hrs	0- 100	0- 1000	A, B, C	I = isolating valve F = Float cock in reservoir (DPS only)
WPS/DPS	20	140 / 2100	11.0	20.8	1 = 1 hr	0- 160	0- 2500	A, B, C	
WPS/DPS	30	200 / 2855	8.0	15.3	4 = 4 hrs	0- 250	0- 3000	A, B, C	
WPS/DPS	40	285 / 4155	5.6	10.6	8 = 8 hrs	0- 400	0- 5000	A, B, C	
WPS/DPS	65	450 / 6400	3.6	6.8	24 = 24 hrs	0- 600	0- 8000	A, E	
WPS/DPS	115	800 / 11,400	2.0	3.8		0- 1000	0- 15,000	D, E	
WPS/DPS	180	1245 / 17,800	1.3	2.5		0- 1600	0- 20,000	D, E	
WPS/DPS	255	1790 / 25,600	0.9	1.7		0- 2000	0- 30,000	D, E	
WPS/DPS	400	2800 / 40,000	0.6	1.1		0- 3000	0- 45,000	D	
WPS/DPS	520	3650 / 52,200	0.45	0.8		0- 4000	0- 55,000	D	
DPS = with reservoir WPS = with direct water feed	The type of the unit indicates the pump ratio and thus the output pressure.		1 = single acting pump	2 = double acting pump	Recorder with choice of chart revolution	B = bar D = double scale	P = psi	A = 1/2" NPT-F. B = 1/2" BSPP-F C = 1/2" BSPP-M hose-conn. D = M20x1.5-F for 10 mm and 3/8" high-pressure tubing E = 1/4" BSPP-M hose-conn.	

Ordering example

DPS - 115 - 1 - R24 / B / D / I

Dimensions



* See model-coding table

Powerpack model	Length (mm)				Width (mm)				Height (mm)	Reservoir (DPS) (Litres)		Weight (kg)			
	-1	-2	-R	-2-R	-1	-2	-R	-2-R		-1	-2	-1	-2	-R	-2-R
DPS- 10	670	-	780	-	380	-	380	-	505	11	-	35	-	39	-
DPS- 20 thru 520	515	670	670	780	325	380	325	380	505	11	18	33	38	37	42
WPS- 10 thru 520	515	670	670	780	325	325	325	325	505	11	18	29	34	33	38



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WB Support Jacks



Standard Jack



Folding Jack

The WB support jacks fabricated by Th. Wortelboer B.V , are thanks to the stable and multifunctional execution, the ideal tool for the welder and the pipe fitter.

Properties

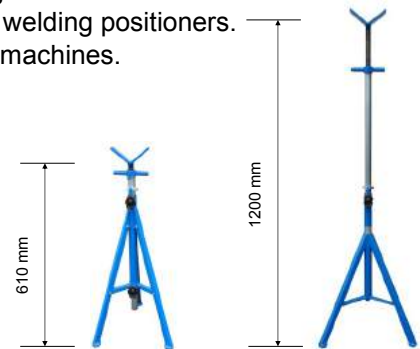
- Stable
- Multifunctional
- Deliverable as a folding model
- Load bearing capacity till 900 kg.
- Height setting through fine/rough setting.
- Standard usable for pipes from 2" till 12"
- With optional big V-head usable for pipes till 24"

The WB jacks give support with

- Welding and fitting.
- Sawing machines.
- Rotary welding positioners.
- Milling machines.

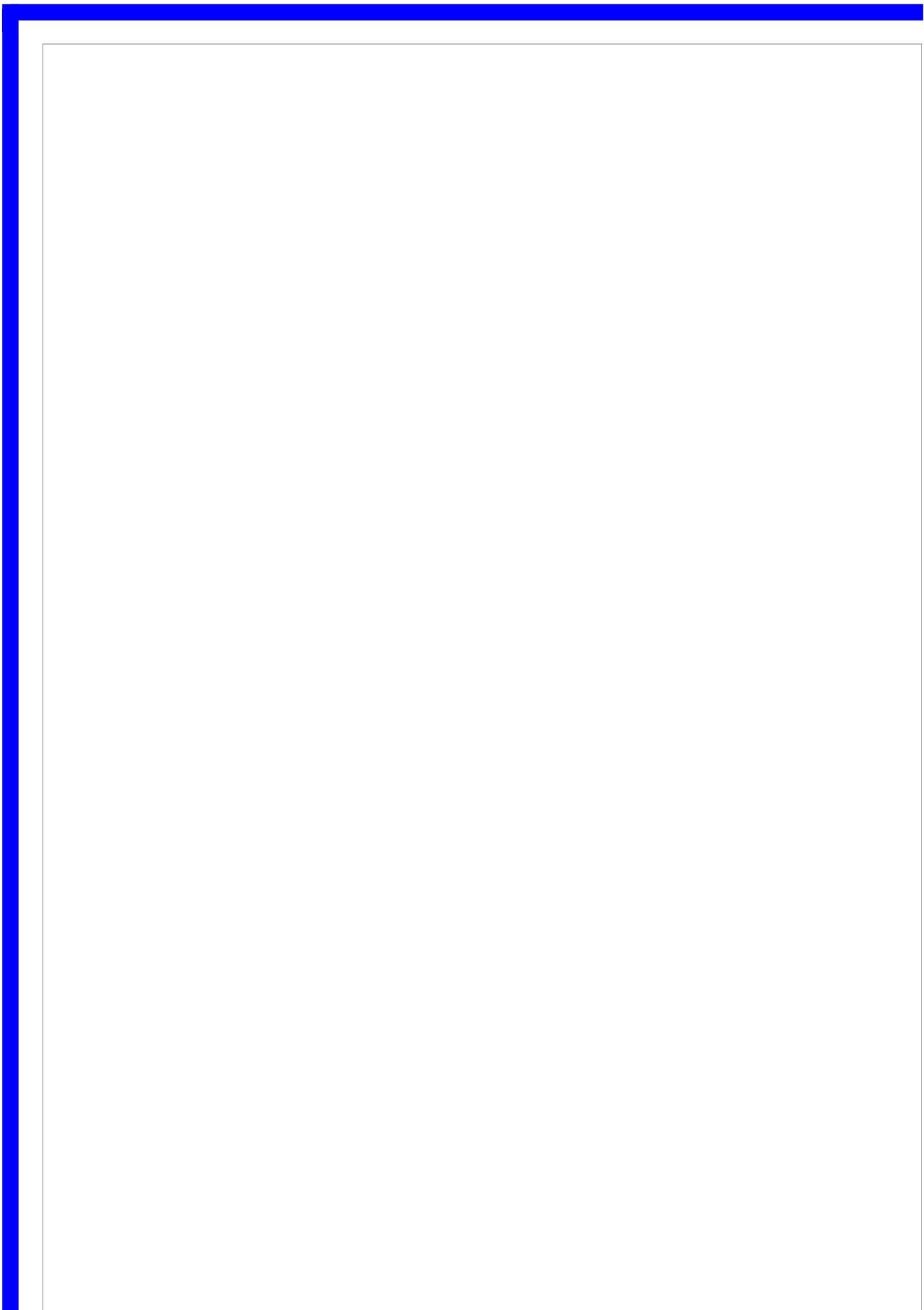


Big V-head



Deliverable are also below mentioned supporting sets. These sets can be mounted over the V-head.

				
Standard V-head	St. steel set	Ball transfer head	Steel wheel set	Rubber wheel set
Capacity 900 kg.	Capacity 900 kg.	Capacity 450/290 kg.	Capacity 900 kg.	Capacity 200 kg.





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WRB ROLLER BLOCKS

for pipe 2"-12" / 3"-24" / 24"-56"



- loose turnable rolls • extra heavy designed
- very stable • pipe can rotate or move horizontal

The WRB roller blocks are very stable and sturdy. The loose rolls can easily be turned so the pipe can either turn around its own axis or move in linear direction. See detail turnable rolls on the picture on the right.

For the smallest diameters the WRB 2-12 MINI is available for pipe or tube from 2" till 12". The WRB 24-56 is suitable for the range of 24" till 56".

For convenient internal transport the WRB 2-12 MINI and the WRB 3-24 are provided with handles while the WRB 24-56 can be picked with a pallet truck.

The WRB 3-24 can also be placed on an undercarriage to bring the pipe or tube in a higher working position. See details on the back.



for

heat exchanger manufacturing • offshore constructions
apparatus manufacture • equipment constructions
shipbuilding • machine construction • pipeline construction

WRB roller block specifications



	WRB 2-12 MINI	WRB 3-24	WRB 24-56
Range in inches (pipe sizes)	2 till 12 inch	3 till 24 inch	24 till 56 inch
Range in mm	60 till 325 mm	80 till 610 mm	610 till 1425 mm
Standard amount of rolls	2	2	2
Load capacity	1500 Kg	1500 Kg	1500 Kg
Dimensions (L x W x H)	353 x 300 x 170 mm	710 x 140 x 270 mm	1312 x 330 x 640 mm
Weight	20 Kg	32 Kg	110 Kg

	Undercarriage for WRB 3-24
Load capacity	1500 Kg
Dimensions (L x W x H)	1000 x 600 x 631 mm
Weight	29 Kg



ACCESSORIE 1: H-BEAM MOUNTING

Fixture for mounting the WRB 3-24 rollerblocks onto and the fixture can be mounted to H-beams. This is specially developed when you need to enter pipes into pipe-bridges and the beam (as these are conserved) cannot be damaged. The special made protection for the H-beam makes this work easy without any problem. Per rollerblock you need two fixtures.



ACCESSORIE 2: HEAVY ROLLERS

Special wheelset for mounting into the standard WRB-24-56 rollerblocks for rolling VERY HEAVY pipe into the pipe-bridge. These were made for carrying capacity of around 6 Tons per rollerblock. The standard rollerblocks were already capable for this weight.





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WRB - ROLLER SUPPORTS



MODEL RS-315

Support for rolling cable or pipe.
Supplied with dust-closed bearings
Made of STEEL - Galvanised
Steel base plate for anti-sinking in ground
Carrying capacity 200 Kgs.
Pipe diameter max. 323,9 mm.
Weight: 4,6 Kgs.



MODEL RS-650 / RS-900

Support for rolling pipe 80-650 / 200-900 mm.
Supplied with dust-closed bearings
Made of STEEL - Galvanised
Carrying capacity 1.000 Kgs. / 500 Kgs.
Dim. 400x520x240 mm. / 900x400x400 mm.
Weights: 14 Kgs. / 21 Kgs.



MODEL RS-650 PU

Support for rolling pipe 80-650 mm.
Supplied with dust-closed bearings
Made of STEEL - Galvanised - with
POLYURETHANE covered rolls
Carrying capacity 1.000 Kgs.
Dim. 400x520x240 mm.
Weight: 15 Kgs.

MODEL RS-650H

Support for rolling pipe till 700 mm.

Supplied with hydraulic height adjustable beared rolls.

Made of STEEL - Galvanised/ coated and supplied with mounting holes.

Carrying capacity 500 Kg.

Height adjustment in the middle approximately 240-330 mm.

Dim. 1050 x 400 x 370 mm.

Weight: 40 Kgs.



MODEL RS-1500

Support for rolling pipe till 1500 mm.

Supplied with adjustable beared rolls.

Made of STEEL - Galvanised/ coated.

Carrying capacity 2000 Kg.

Dim. 1000 x 1700 x 350 mm.

Weight: 90 Kg.





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Rollerblock R300, R500 and R2000

Type R 300 and R 500

The ideal workplace and assembly apparatus for pipeline and tank building. Easy transportable and therefore very suitable to use mobile for e.g. on construction sites. Easy to handle and almost free of maintenance. The frames can be moved and locked length wise. (for welding of short pipe pieces).

Carry capacity:	300 kg	500 kg
Pipediameter:	15-500 mm.	50-500 mm
Peripheral force:	150 kg	250 kg
Peripheral velocity:	0,05-1,5 m./min.	0,05-1,5 m/min.
Weight:	60 kg	80 kg



Type R 2000

Universal roller block for pipes and tanks, equipped with 2 tilting roller sets. Both roller sets can be locked in horizontal state and this makes it possible to weld pipes with small diameters.

Carry capacity:	2000 kg
Pipediameter:	40-2000 mm
Peripheral force:	275 kg
Peripheral velocity:	0,05-1,5 m/min.
Weight:	220 kg



Standard equipment:

- * Frames in a solid steel construction with drive rollers and idle rollers.
- * Control for the functions speed and rotation.
- * Electronic speed regulation, control ratio 1:30.
- * Stable foot control with protecting cap and 3,5 meter power cable.
- * Low safety voltage at foot control.
- * Power voltage with 5 meter cable and earthed plug.
- * Electric connection : 220 V, 50 Hz, 500 W.
- * Pressure rol, foldable, slidable and lockable.

Options

- * Remote control for the functions speed and rotation in stead of foot control and control panel.
- * Remote control with 4 channels, range until 30 meter.
(combination of the commands is possible)
- * Foot control for speed regulation.
- * Tachogenerator with digital potentiometer for expanding the regulating range(1:100)
- * Foot control unit with 2 foot controls for left and right rotation.

R 300

Max. load	: 300 kg	Diameter rol	: 160 mm.
Turning strength	: 1500 Nm	Rolwidth	: 40 mm. (appr.)
Peripheral velocity	: 0,05-1,5 m/min.	Width rollerblock	: from 500 mm.
Pipediameter	: 15-500 mm.	Depth	: 500 mm. (appr.)
Voltage	: 230 V	Height	: 800 mm. (appr.)
Frequence	: 50 Hz	Weight	: 60 kg.
Capacity	: 0,5 kW		

R 500

Max. load	: 500 kg	Diameter rol	: 200 mm.
Turning strength	: 2500 Nm	Rolwidth	: 50 mm.
Peripheral velocity	: 0,05-1,5 m/min.	Width rollerblock	: from 500 mm.
Pipediameter	: 50-500 mm.	Depth	: 600 mm.
Voltage	: 230 V	Height	: 900 mm.
Frequence	: 50 Hz	Weight	: 80 kg.
Capacity	: 0,5 kW		

R 2000

Max. load	2000 kg	Diameter rol	200 mm.
Turning strength	2750 N	Rolwidth	50 mm.
Peripheral velocity	0,05-1,5 m/min.	Width rollerblock	from 800 mm.
Pipediameter	20-2000 mm.	Depth	950 mm.
Voltage	230 V	Heigth	630 mm.
Frequence	50 Hz	Weight	220 kg.
Capacity	0,5 kW		



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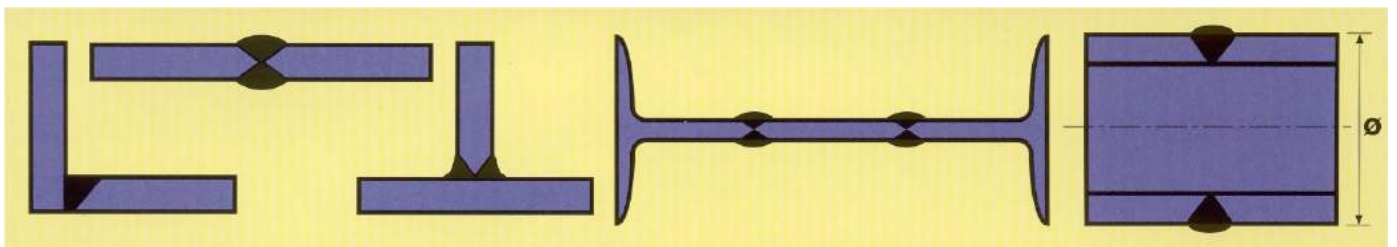
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Sheet beveling machine CHP-7



CHP-7

- Beveling sheets with a speed of appr. 1,6 meter per minute.
- Maximum beveling 6 mm.
- Minimum sheet thickness 3 mm.
- Maximum sheet thickness 16 mm.
- Deliverable angles 22° - 30° - 35° - 37,5° and 45°



Sheet beveling machine CHP-7

The sheet beveling machine CHP-7 “mills” according to a special principle where the milling tool “bites” itself in the material en “slides off” the material from the sheet. The turning movement of the milling cutter provides ALSO the transport of the sheet-material. Because of this, a fixed cutting-speed of appr. 1,8 meter per minute is possible, as the r.p.m. of the milling cutter is also the feeding-speed.

Small sheet-pieces can be fed manually into the machine. For large sheets, we supply as option a so called “spring-loaded carriage”. The on this carriage mounted CHP-6 machine can be simply rolled against the sheet the milling cutter will “bite” itself to the sheet material and will transport itself along the sheet automatically.



Small sheets feed manually.



Beveling pipes.



Diverse angles deliverable.



Carriage for big sheets.
(Picture shows the CHP-12 machine)



The chip.

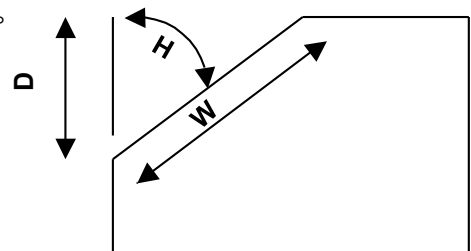


The cutter.

Technical details

Beveling angle	: 22,5° - 30° - 35° - 37,5° and 45°
Feed	: 1,6 meter per minute.
Sheet thickness	: 3 till 16 mm.
Maximum beveling length	: see tabel
Minimum pipe	: 100 mm. I.D.
Weight	: 34 kg.
Motor	: 380V.- 50Hz.– 0,75 pk.

Further electric equipped in conformity with CE normalization.



Estimated values for beveling in 1 working pass.

	Material 40 kg./mm ²		Material 50 kg./mm ²		Material 60 kg./mm ²	
H	W	D	W	D	W	D
22,5°	6 mm.	5,5 mm.	5 mm.	4,5 mm.	4 mm.	3,5 mm.
30°	6 mm.	5 mm.	5 mm.	4,5 mm.	4 mm.	3,5 mm.
35°	6 mm.	5 mm.	5 mm.	4 mm.	4 mm.	3 mm.
37,5°	6 mm.	4,5 mm.	5 mm.	4 mm.	4 mm.	3 mm.
45°	6 mm.	4 mm.	5 mm.	3,5 mm.	4 mm.	3 mm.



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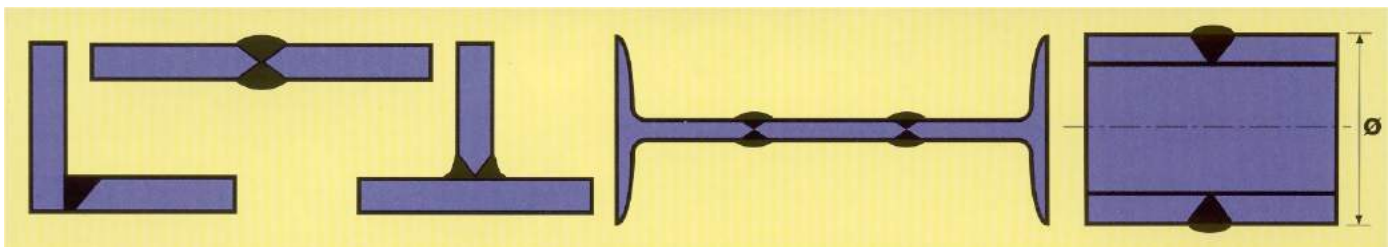
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Sheet beveling machine CHP-12



CHP-12

- Beveling sheets with a speed of 2,6 meter per minute.
- Maximum beveling 12 mm.
Minimum sheet thickness 6 mm.
- Maximum sheet thickness 40 mm.
- Deliverable angles
22,5° - 30° - 35° - 37,5° and 45°



Sheet beveling machine CHP-12

The sheet beveling machine CHP-12 “mills” according to a special principle where the milling tool “bites” itself in the material en “slides off” the material from the sheet. The turning movement of the milling cutter provides ALSO the transport of the sheet-material. Because of this, a fixed cutting-speed of 2,6 meter per minute is possible, as the r.p.m. of the milling cutter is also the feeding-speed.

Small sheet-pieces can be fed manually into the machine. For large sheets, we supply as option a so called “spring-loaded carriage”. The on this carriage mounted CHP-12 machine can be simply rolled against the sheet the milling cutter will “bite” itself to the sheet material and will transport itself along the sheet automatically.



Small sheets feed manually.



Beveling pipes.



Diverse angles deliverable.



Carriage for big sheets.



The chip.

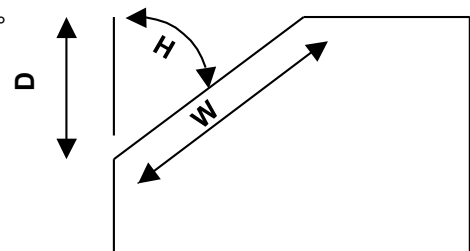


The cutter.

Technical details

Beveling angle	: 22,5° - 30° - 35° - 37,5° and 45°
Feed	: 2,6 meter per minute.
Sheet thickness	: 6 till 40 mm.
Maximum beveling length	: see tabel
Minimum pipe	: 140 mm. I.D.
Weight	: 65 kg.
Motor	: 400V.- 50Hz. - 3 Hp.

Further electric equipped in conformity with CE normalization.



Estimated values for beveling in 1 working pass.

	Material 40 kg./mm ²		Material 50 kg./mm ²		Material 60 kg./mm ²	
	H	W	W	D	W	D
22,5°		12 mm.	10 mm.	9 mm.	8 mm	7,5 mm.
30°		12 mm.	10 mm.	8,5 mm.	8 mm.	7 mm.
35°		12 mm.	10 mm.	8 mm.	8 mm.	6,5 mm.
37,5°		12 mm.	10 mm.	7,5 mm.	8 mm.	6 mm.
45°		12 mm.	10 mm.	7 mm.	8 mm.	5,5 mm.



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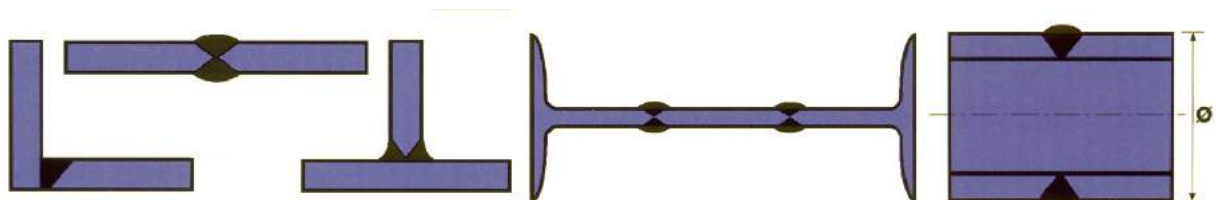
E-mail : info@wortelboer.ws

Sheet beveling machine CHP-12-G



CHP-12-G

- Beveling sheets with a speed of 2,6 meter per minute.
- Maximum beveling 12 mm. (in one pass)
Minimum sheet thickness 6 mm.
- Maximum sheet thickness 30 mm.
- Adjustable angles between 20° - 45°



Sheet beveling machine CHP-12-G

The sheet beveling machine CHP-12-G “mills” according to a special principle where the milling tool “bites” itself in the material and “slides off” the material from the sheet. The turning movement of the milling cutter provides ALSO the transport of the sheet-material. Because of this, a fixed cutting-speed of 2,6 meter per minute is possible, as the r.p.m. of the milling cutter is also the feeding-speed.

Small sheet-pieces can be fed manually into the machine. For large sheets, the on a supplied carriage mounted CHP-12-G machine can be simply rolled against the sheet, the milling cutter will “bite” itself to the sheet material and will transport itself along the sheet automatically.



Hand feeding of small sheets.



Beveling pipes



The chip

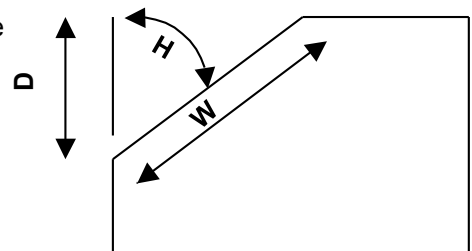


The milling cutter

Technical details

Beveling angle	: 20° up to 45° - stepless adjustable
Feed	: 2,6 meter per minute.
Sheet thickness	: 6 till 30 mm.
Maximum beveling length	: see tabel
Minimum pipe	: 110 mm. I.D.
Weight	: 110 kg.
Motor	: 400V.- 50Hz. - 3 Hp.

Further electric equipped in conformity with CE normalization.



Estimated values for beveling in 1 working pass. (more possible by multiple passes)

	Material 40 kg./mm ²		Material 50 kg.mm ²		Material 60 kg./mm ²	
	W	D	W	D	W	D
25°	12 mm.	11 mm.	10 mm.	9 mm.	8 mm.	7,5 mm.
30°	12 mm.	10 mm.	10 mm.	8,5 mm.	8 mm.	7 mm.
35°	12 mm.	9,5 mm.	10 mm.	8 mm.	8 mm.	6,5 mm.
37,5°	12 mm.	9 mm.	10 mm.	7,5 mm.	8 mm.	6 mm.
45°	12 mm.	8,5 mm.	10 mm.	7 mm.	8 mm.	5,5 mm.



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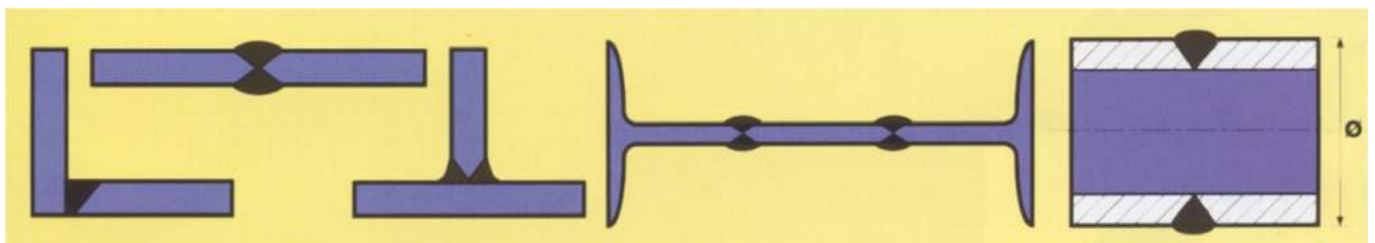
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Sheet beveling machine CHP-21G



CHP-21G

- Beveling with a speed of 1,8 meter per minute.
- Maximum beveling height of 20 mm.
- Maximum sheet thickness of 50 mm.
- Angular position 20° till 45° adjustable.





Spring carriage standard.



Small sheet pieces can be inserted manual.



Pipe ends beveling from 150 mm. I.D.

Sheet beveling machine CHP-21G

The bevel sheet machine CHP-21G mills according to a special principle whereby the cutter "bites" itself into the material and slides the material off from the sheet. The turning movement from the cutter takes care of the material transportation through the machine. Because of this is a solid feed possible of 1,8 meter per minute, the revolution speed is the same as the feed.

Technical details

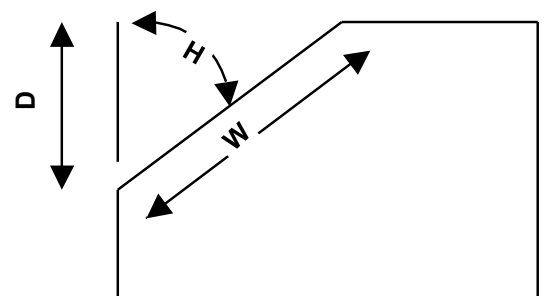
- Bevel angle : 20° till 45° adjustable.
- Feed : 1,8 meter per minute.
- Sheet thickness : 9 till 50 mm.
- Maximum bevel length : 20 mm. in 1 machining at St. 37.
- Minimal pipe : 150 mm. I.D.
- Weight : 370 kg.
- Motor : 400V.- 50Hz.- 4 hp.

Further electrical equipped in conformity with CE standards.



CHP-21G-INV for beveling the under-side of the plate

H	Material 40 kg./mm ²		Material 50 kg./mm. ²	
	W	D	W	D
25°	20 mm	18 mm	16 mm	14,5 mm.
30°	20 mm.	17,5 mm.	16 mm.	14 mm.
35°	20 mm.	16,5 mm.	16 mm.	13 mm.
37,5°	20 mm.	16 mm.	16 mm.	12,5 mm.
45°	20 mm.	14 mm.	16 mm.	11,5 mm.





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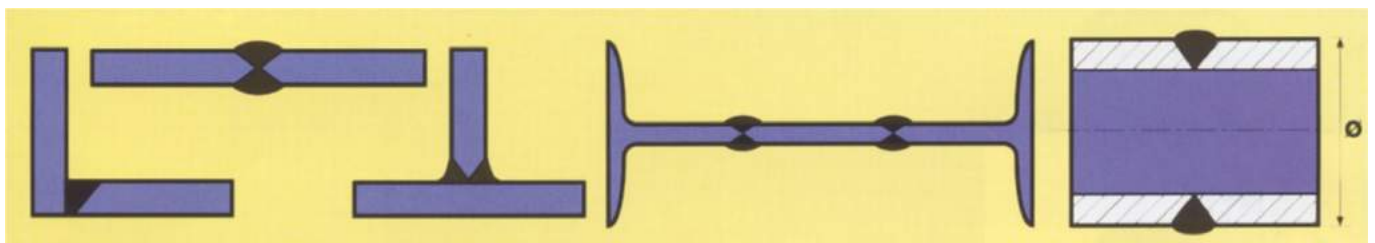
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Sheet beveling machine CHP-60



CHP-60 G

- Beveling with AUTO-feeding of the plate or along the plate.
- Maximum beveling length of 60 mm.
- Sheet thickness 10 -100 mm.
- Angular position 15° till 70° adjustable.
- Working height 750-950 mm.
- Mills the bevel carbide inserts





Small sheet pieces can be inserted manually.



Spring carriage standard delivered.

Sheet beveling machine CHP-60G

The MILLING machine for sheetplates/strips model CHP-60G mills with carbide inserts a bevel to a plate (or plate piece). The milling tool rotates with appr. 550 r.p.m. and has a separate drive for the feed of the material or transport of the machine along the sheet. The milling tool is dia. 80 mm. with 7 inserts.

Technical details

- Beveling angle : 15° till 70° stepless adjustable.
- Feeding speed : 0,2 - 0,5 meter per minute.
- Sheet thickness : 10 upto 70 / 100 mm.
- Maximal beveling length : 60 mm. in more passes.
- Minimal sheet width : 100 mm.
- Weight : 800 kg.
- Motor : 380V.- 50Hz.– 5 pk.
- Height adjustment : pneumatic driven
- Further electrically equipped in conformity with CE standard.

GRADOS ANGLES	1ª PASADA 1 ST RUN		2ª PASADA 2 ND RUN		3ª PASADA 3 RD RUN		4ª PASADA 4 TH RUN		5ª PASADA 5 TH RUN		6ª PASADA 6 TH RUN		7ª PASADA 7 TH RUN	
	A	B	A	B	A	B	A	B	A	B	A	B	A	B
20°	7 (7)	21	2 (9)	26	2 (11)	32	2 (13)	38	1 (14)	41	1 (15)	44	1 (16)	47
25°	8 (8)	19	4 (12)	28	3 (15)	35	3 (18)	43	2 (20)	47	1 (21)	50	1 (22)	52
30°	10 (10)	20	5 (15)	30	4 (19)	38	3 (22)	44	2 (24)	48	2 (26)	52	2 (28)	56
35°	10 (10)	17	5 (15)	26	4 (19)	33	3 (22)	38	2 (24)	42	2 (26)	45	2 (28)	49
37,5°	10 (10)	16	6 (16)	26	4 (20)	33	3 (23)	38	3 (26)	43	2 (28)	46	1 (29)	48
40°	10 (10)	16	6 (16)	26	4 (20)	32	3 (23)	36	3 (26)	41	2 (28)	44		
45°	10 (10)	14	6 (16)	23	4 (20)	29	3 (23)	33	3 (26)	37	3 (29)	41		
50°	10 (10)	13	6 (16)	21	4 (20)	26	3 (23)	30	2 (25)	33	2 (27)	36	2 (29)	38

Table for CARBONsteel and low alloyed steel quality upto 80 kgs/mm²

- A PENETRACION PARCIAL (PENETRACION ACUMULADA)
- B PARTIAL PENETRATION (TOTAL PENETRATION)
- B PROFUNDIDAD DEL CHAFLAN
- B BEVEL DEPTH



$$B = A / \sin \alpha$$

GRADOS ANGLES	1ª PASADA 1 ST RUN		2ª PASADA 2 ND RUN		3ª PASADA 3 RD RUN		4ª PASADA 4 TH RUN		5ª PASADA 5 TH RUN		6ª PASADA 6 TH RUN	
	A	B	A	B	A	B	A	B	A	B	A	B
20°	6 (6)	17	2 (8)	23	2 (10)	29	1 (11)	32	1 (12)	35		
25°	7 (7)	19	3 (10)	24	2 (12)	28	2 (14)	33	1 (15)	35	1 (16)	38
30°	8 (8)	16	4 (12)	24	3 (15)	30	2 (17)	34	2 (19)	38	1 (20)	40
35°	9 (9)	15	4 (13)	22	3 (16)	26	2 (18)	31	2 (20)	35	1 (21)	36
37,5°	9 (9)	14	4 (13)	21	3 (16)	26	2 (18)	30	2 (20)	33	1 (21)	34
40°	9 (9)	14	4 (13)	20	3 (16)	24	2 (18)	27	2 (20)	30	1 (21)	32
45°	9 (9)	12	4 (13)	18	3 (16)	22	2 (18)	25	2 (20)	27	1 (21)	29
50°	9 (9)	11	4 (13)	16	3 (16)	20	2 (18)	22	1 (19)	24		

Table for STAINLESS steels and Manganese steel upto 140 kgs/mm²



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KOHLE SHEET BEVELING MACHINES

Handheld edge milling and deburring machines.

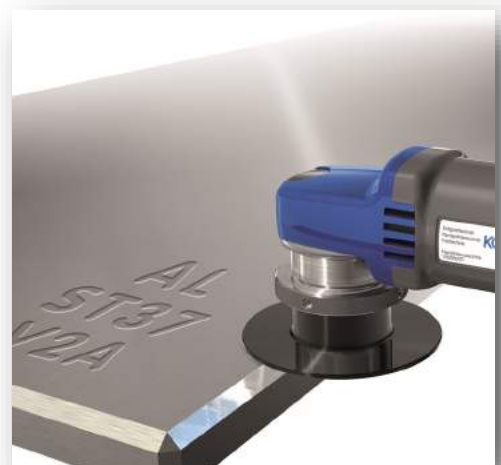


- Large application range • quick, safe and flexible
- for welding edges or deburring • easy to handle

With the Kohle edge milling machines different inside and outside contours can be milled and / or deburred, e.g. boreholes, flanges, sheet metal, pipes.

Even visible surfaces in process plant engineering and welding seams can be prepared with these handy, yet powerful machines. Also radii are possible. Furthermore, sharp corners and edges can be safely deburred.

These machines have a wide application range. They can be used on steel, light metal, stainless steel, non-ferrous metal and plastic. Custom made cutter heads are available beside the standard 45°, 30° and 60° cutter head.



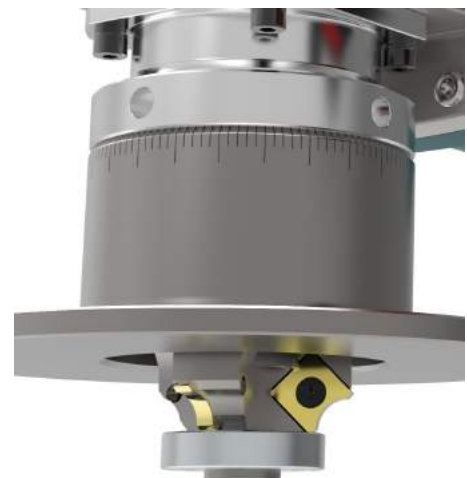
For

- heat exchanger manufacturing • offshore constructions
- Apparatus manufacture • equipment constructions
- shipbuilding • machine construction • pipeline construction

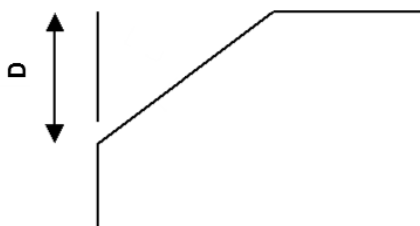
Technical specifications Kohle series



Type	Kohle 2014 for 30°, 45° or 60°	Kohle 2014 for Radii 1-4	Kohle 2014 for radii 5-6
Power	1700 W	1700 W	1700 W
Motor	230 V electronically variable	230 V electronically variable	230 V electronically variable
RPM	2.800 - 11.500 RPM	2.800 - 11.500 RPM	2.800 - 11.500 RPM
Protection class	IP20	IP20	IP20
Weight	3,5 Kg	3,5 Kg	3,5 Kg
Maximum capacity (*)	8 mm / 30° (nr. 100006)	1 mm / R1 (nr. 110001)	5 mm / R5 (nr. 110005)
	5 mm / 45° (nr. 100004)	2 mm / R2 (nr. 110002)	6 mm / R6 (nr. 110006)
	4 mm / 60° (nr. 100005)	3 mm / R3 (nr. 110003)	
		4 mm / R4 (nr. 110004)	



Type	Kohle 2023 for 30°, 45° or 60°
Power	2600 W
Motor	230 V
RPM	6.600 RPM
Protection class	IP20
Weight	7,5 Kg
Maximum capacity (*)	14 mm / 30° (nr. 100016)
	10 mm / 45° (nr. 100017)
	7 mm / 60° (nr. 100015)



(*) The maximum capacity can drop, depending on the hardness and toughness of the material.

This chart only gives a short overview of some Kohle machines. There is more information available about the many possibilities.



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Bevel polish machine CHL-25

This portable machine can polish a bevel with a maximum width of 25 mm and angles between 20° and 45° in a single pass.



- **Adjustable heighth.**
- **Fast polishing.**
- **Eliminates mistakes.**
- **Electric box with protection fuse.**
- **With emergency stop button.**



Technical specifications



Typ	CHL-25
Voltage	220 V. - 50 Hz.
Motor	1300 W.
Max. bevel length	25 mm.
Bevel angle	20° - 45°
Weight	18 Kg.
Disc diameter	125 mm.
Supplying form	3 discs (1 on machine) / 2 fuses 6,3 A. / set keys / 1 disc cover / instructi-on manual.





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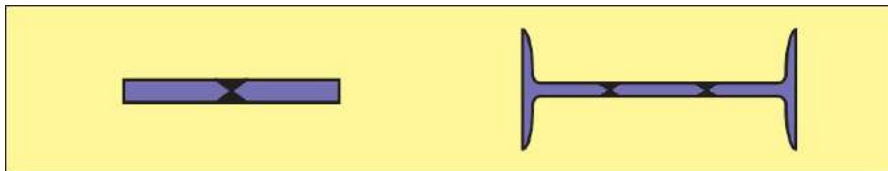
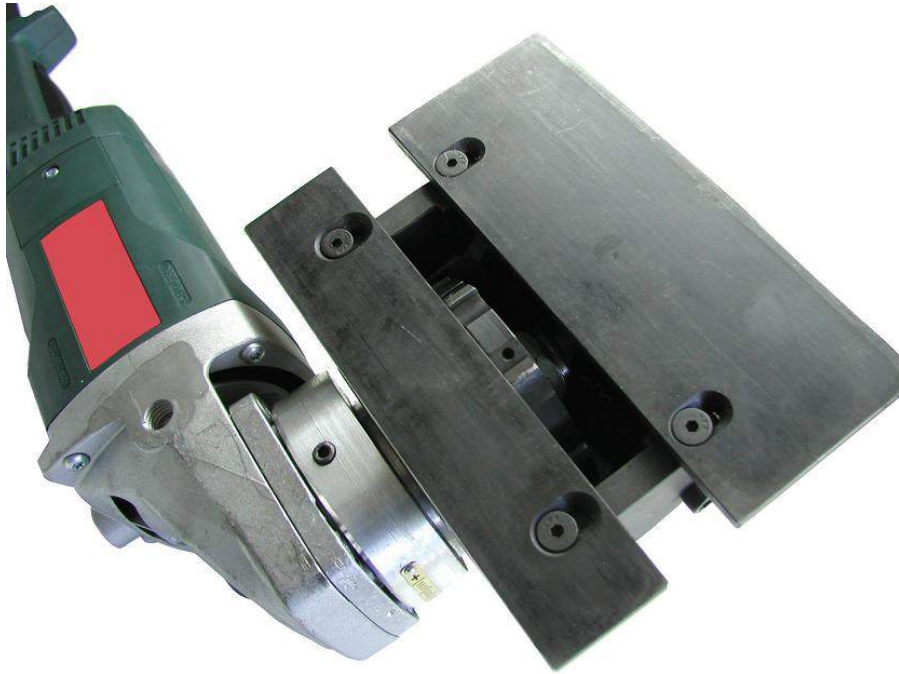
Weldseam flattener LHP-12

This portable machine removes the (exceeding) welding seam with a maximum of 12 mm width and 5 mm height in a single pass.



- **Adjustable depth of cut**
- **Fast cutting**
- **Eliminates grinding & mistakes**

Technical specifications



Typ	LHP-12
Voltage	220 V. - 50 Hz.
Motor	1500 W
Width of cut	12 mm.
Maximum weld height	5 mm.
Weight	11 Kg.
Number of inserts	8
Supplying form	Set inserts / bottle of lubricant / set keys / instruction manual.



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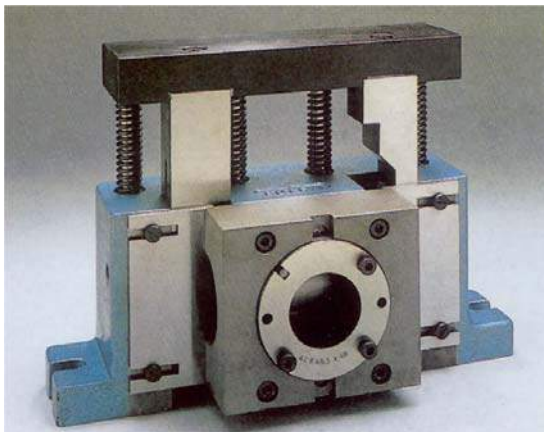
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Round, square/rectangular pipe notcher

Manual pipe notchers

Manual notchers suitable for notching pipes of 90° connections.

Deliverable in the diameter range 10 till 90 mm.



Round, square/rectangular pipe notchers

Pipe and square/rectangular pipe notchers for use under an eccentric press for notching pipes of several angle connections.

The notchers are double-acting, this means that the pipe does not have to be rotated.

The double-acting notchers are deliverable in the size range till 50 mm, single acting can do larger.

Round, square/rectangular pipe notchers

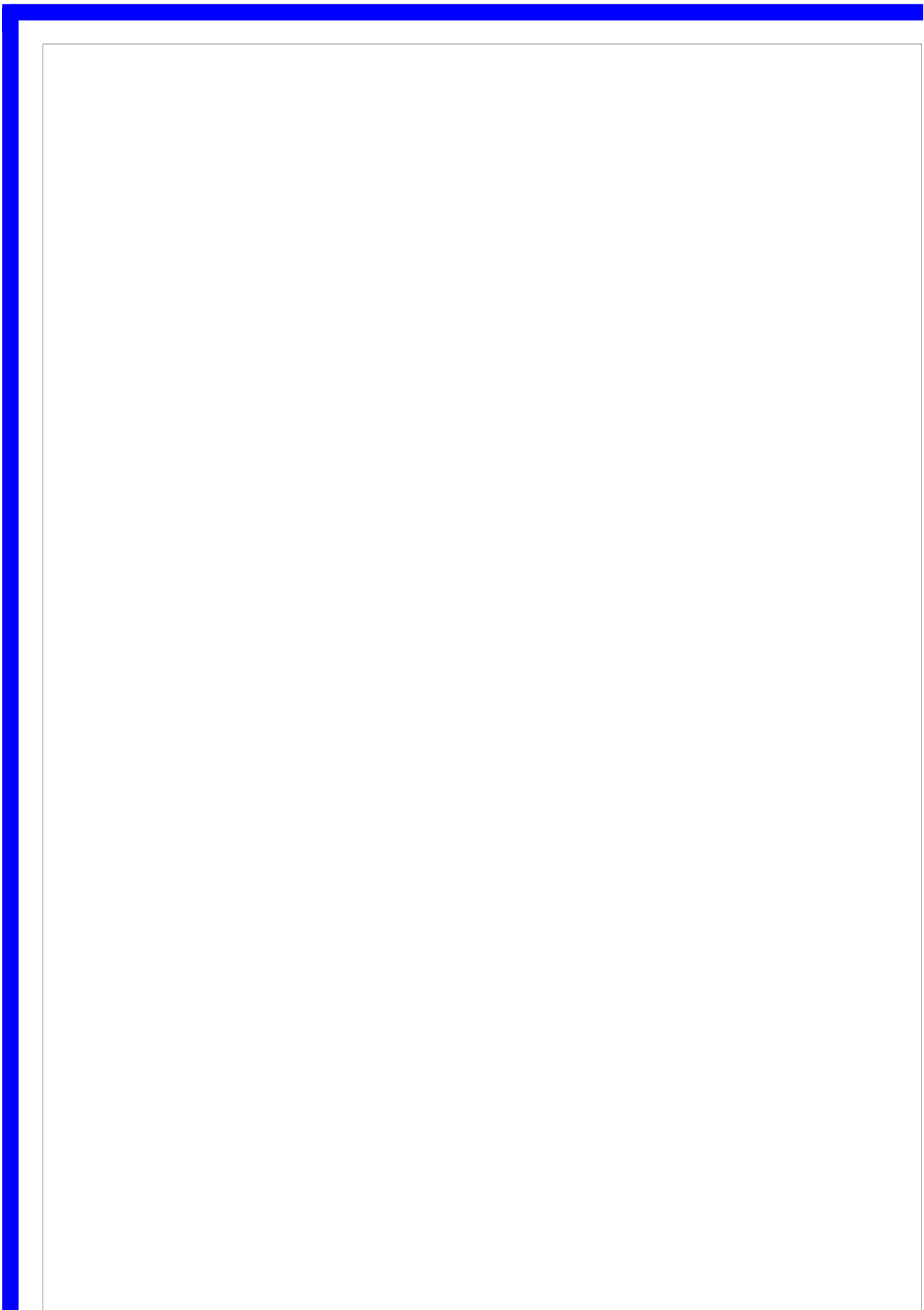
Hydraulic round, square/rectangular pipe notchers for notching of several angle connections.

The notchers are single or double-acting, this can mean that the pipe does not have to be rotated. This is dependent on size.

A hydraulic unit can be delivered to drive the hydraulic notcher. An option is also a work table.

The notchers including the pipework can be mounted on this work table, the hydraulic unit can be mounted under the work table.







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Pipe cutting and clicking machines

Thin-walled and stainless steel pipes

The type Wortelboer notching machines produce a deeper notch than the previous series. This means they are particularly suitable for thin-walled, aluminium, stainless steel and steel pipes with a maximum wall thickness between 2 and 3 mm. A tool highly suitable for use during welding processes.

Type AL Manual operated for O.D.

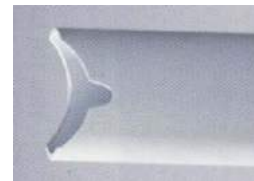
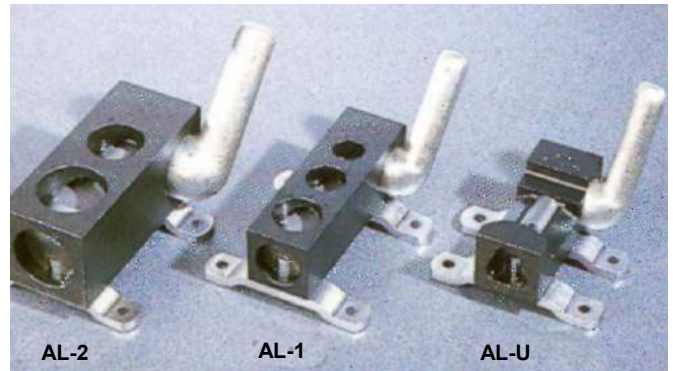
AL-1 Ø 27,9 - 34,8 - 42,8 mm. (3/4"-1"-1.1/4")

AL-2 Ø 49 - 61 mm. (1.1/2"-2")

AL-3 Ø 42,8 - 49 mm (1.1/4" - 1.1/2")

AL-U pipe notching machines are available for cutting out the venting slots in round square-section steel pipes with outside diameters from 27 mm. Upwards and with a thickness of max. 5 mm.

Type AL-U Ø 27,0-61,0 mm.



Elektric drive

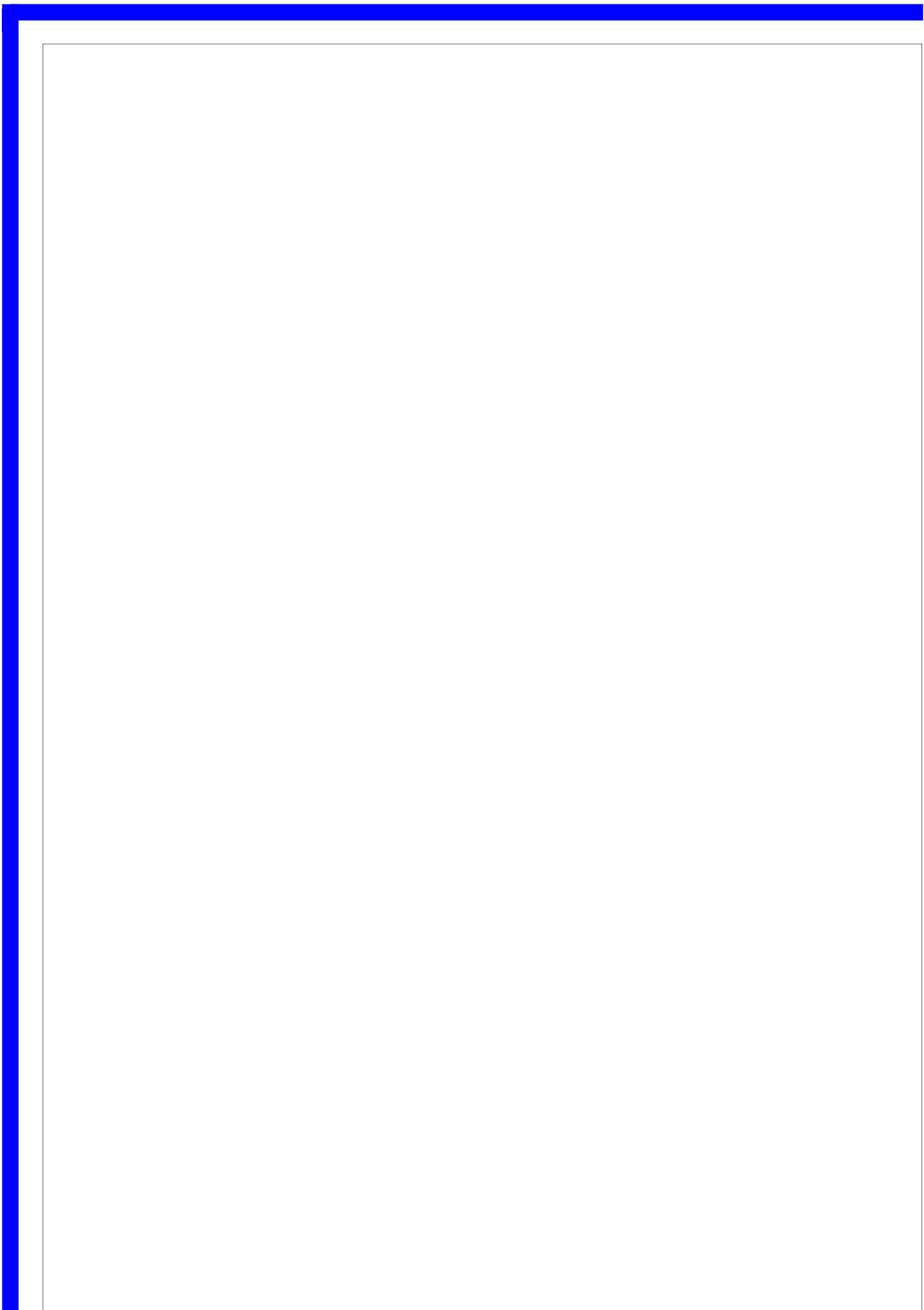
For situations many notches have to be made, Wortelboer delivers a notching machine with a 2.2 kW electric motor. The motor forms one unit with the special eccentric shaft which drives the notching tool. The motor is also fitted with an on/off switch with zero voltage protection and a guard.

Type AL Electric drive 380 V:

AL-1 + 2 E usable for sizes as AL-1 and AL-2

AL-1 + 2 U as AL-1 and 2E+ clicking zinc-outlet







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Sawing Guides standard and with QUICK - LOCK - SYSTEM



Standard



With
Quick Lock

The Sawing Guide are the ideal equipment for square sawing of pipes.

The Quick Lock clamping system provides a faster and easier mounting compared to the "standard" sawing guides.

The Sawing Guides are made of hardened steel for a long life.

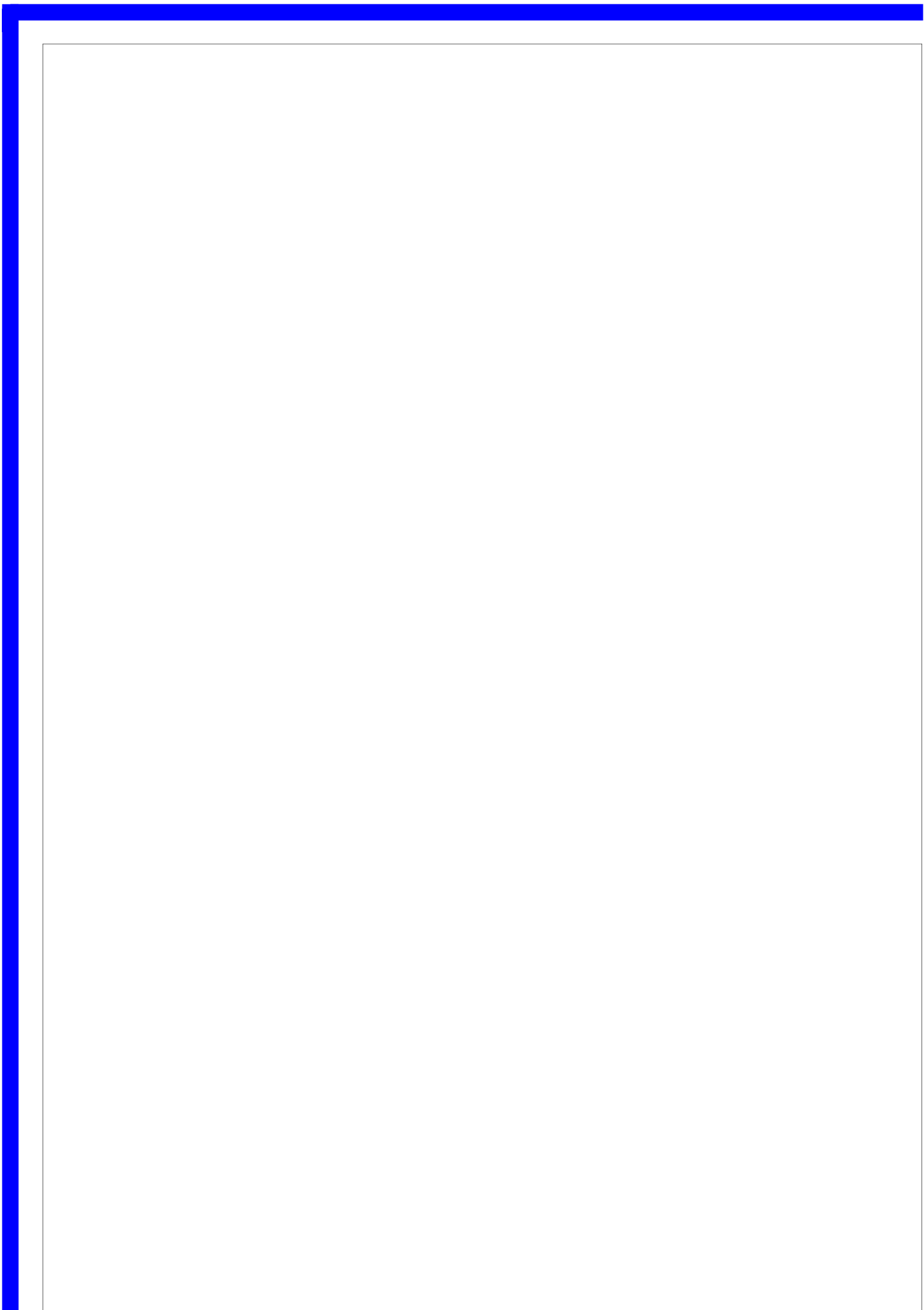
We supply the Sawing Guides for the pipe sizes DN10 till DN200 and 1/4" t/m 6".

Other sizes on request.



mm	DN	Standard	Quick Lock
12	10	X	X
13	10	X	X
18	15	X	X
19	15	X	X
22	20	X	X
23	20	X	X
28	25	X	X
29	25	X	X
34	32	X	X
35	32	X	X
40	40	X	X
41	40	X	X
52	50	X	X
53	50	X	X
70	65	X	X
85	80	X	X
104	100	X	X
129	125	-	X
154	150	-	X
204	200	-	X

mm	ISO	Standard	Quick Lock
13.5		X	X
17.2		X	X
21.3		X	X
26.9		X	X
33.7		X	X
42.4		X	X
48.3		X	X
60.3		X	X
76.0 / 76.2		X	X
88.9		X	X
114.3		-	X
139.7		-	X
168.3		-	X
mm	INCH		
6.4	1/4"	-	X
9.5	3/8"	-	X
12.7	1/2"	X	X
25.4	1"	X	X
31.8	1.1/4"	X	X
38.1	1.1/2"	X	X
50.8	2"	X	X
63.5	2.1/2"	X	X
76.2	3"	X	X
88.9	3.1/2"	X	X
101.6	4"	X	X
152.4	6"	-	X





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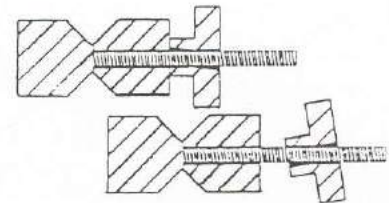
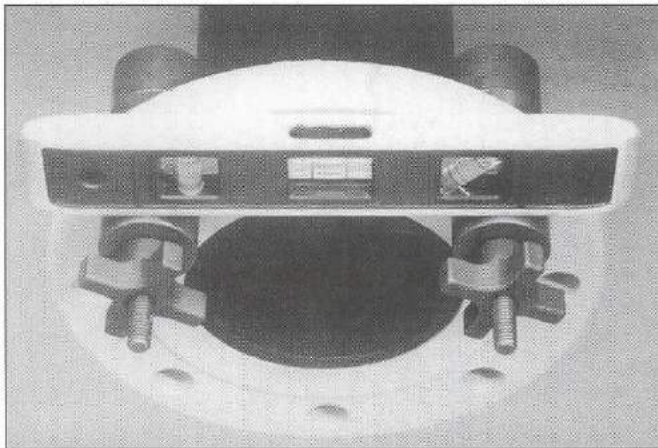
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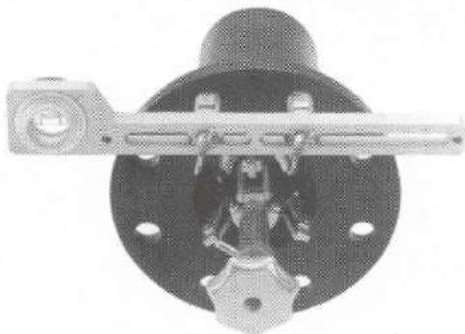
Spirit levels



QUICK FLANGE ALIGNING CONES

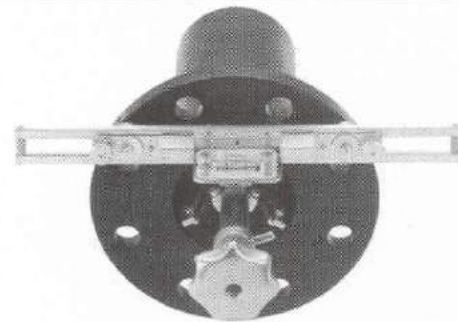
With these flange cones and a spirit level (length 400 mm.), you can quickly and easily align bolt holes of flanges. Suitable for bolt holes of 14-36 mm. (9/16" - 1 1/2").

Also deliverable in **stainless steel** execution.



FLANGE SPIRIT LEVEL with PINS/SPRINGS and PROTRACTOR

Usable for aligning bolt holes of flanges. Executed with an adjustable protractor and pins with springs to mount **in** the bolt holes. Suitable for bolt holes of 13 - 24 mm. (pins for larger bolt holes are available).
Length: 300 mm. and 400 mm.

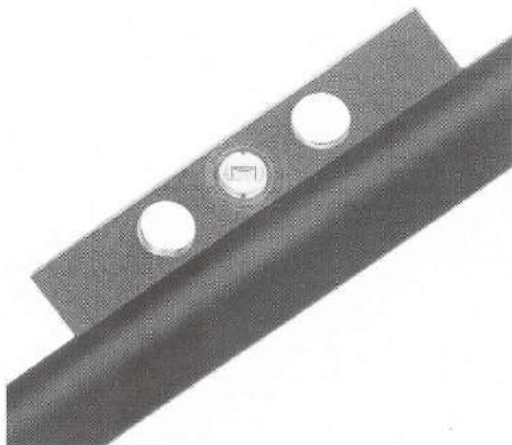


MAGNETICAL FLANGE SPIRIT LEVEL

Usable for horizontally aligning of bolt holes of flanges.

Executed with 2 sliding magnets.

Length: 300 mm. and 500 mm.

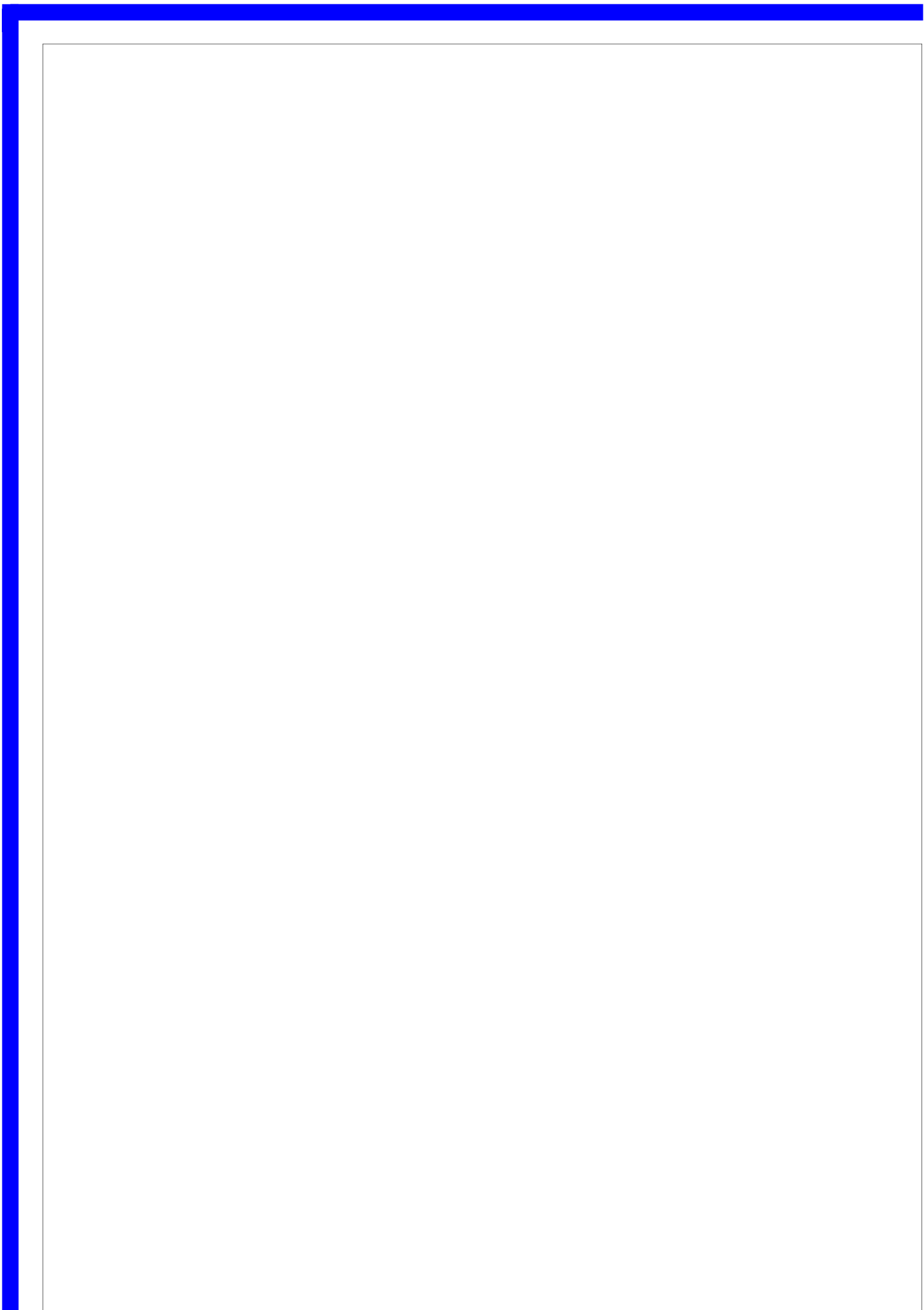


MAGNETICAL SLOPE SPIRIT LEVEL

For fixation slope of pipelines.

Executed with an adjustable protractor.

Length: 300 mm. and 500 mm.





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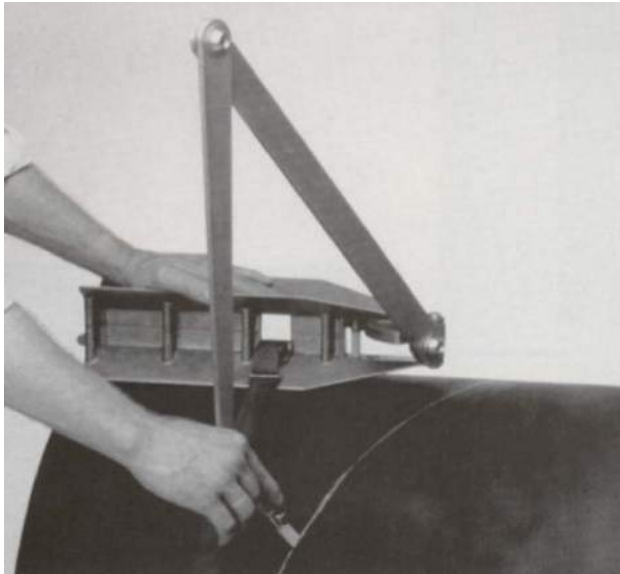
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FAX 31 - 24 - 358 70 79

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Curv-O-Mark mark off tools



Contour markers for marking off **pipes and structures** as T and Y connections:

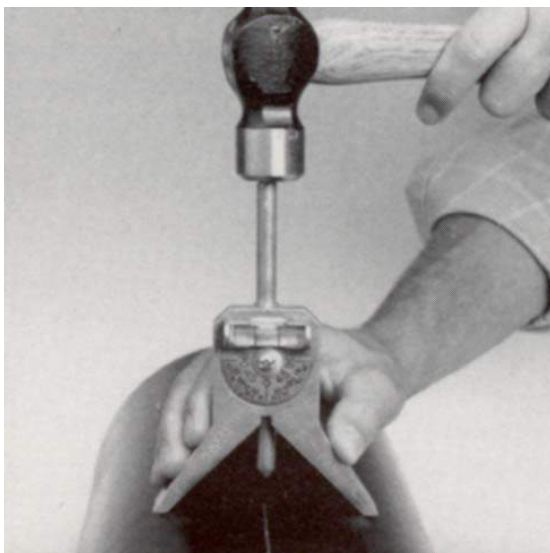
No. 1 Standard
for pijpdia. Ø 1.1/2 - 18"

No. 4 Jumbo
for pijpdia. Ø 8 - 48"

No. 2 Combination adaptor
for no. 1

No. 3 Leather case
for no. 1

No. 5 Combination adaptor
for no. 4



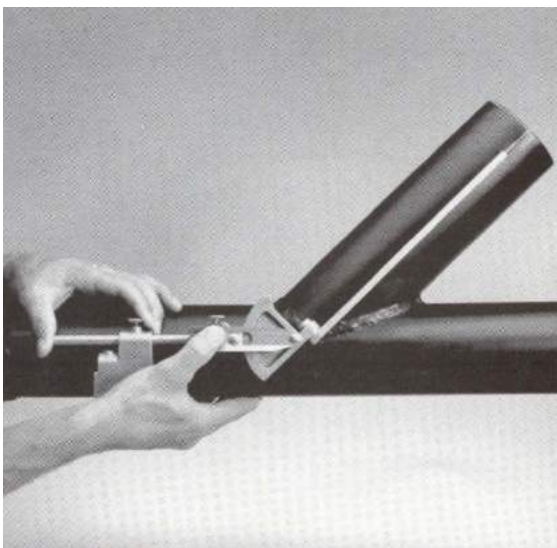
Centering heads are available in 2 types.
Type Jumbo is provided with an automatic centering punch.

No. 6 Standard for pijpdia. Ø 1/2" and larger
No. 7 Jumbo for pijpdia. Ø 1" and larger
Repair set for no. 6 en 7
Centering point for no. 6

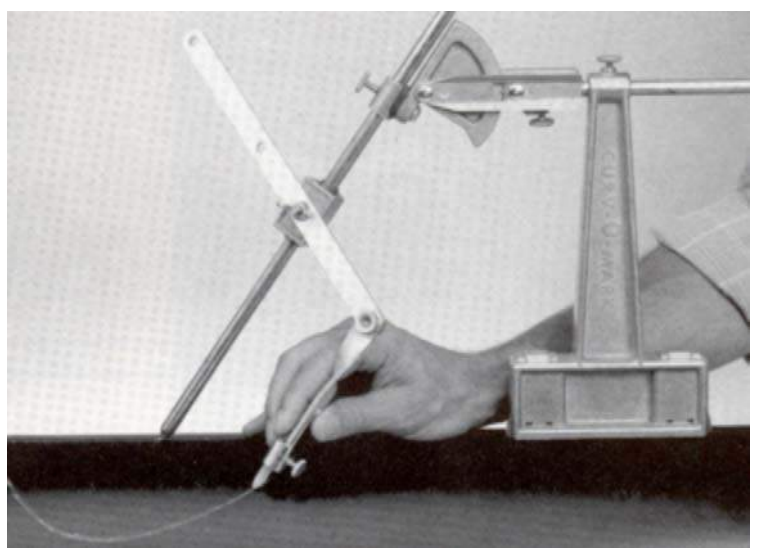


Wrap-a-rounds are for marking straight lines, produced of a flexible material and heat and cold resistance (till + 285°C).

164GG	100 mm. x 1200 mm.	3" - 6"
176GG	100 mm. x 1800 mm.	3" - 10"
179GG	125 mm. x 2700 mm.	6" - 16"



No. 9 **Fitter-Welder Protractor**
Ruler length 300mm.



No. 14 **Circle-Ellipse Projector**
for marking off circles and ellipses on pipes, tanks, boilers etc.
A strong magnetic foot keeps the projector on his place.



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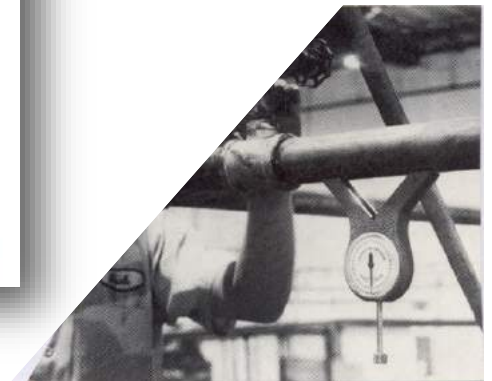


Standard (900-01)



JUMBO

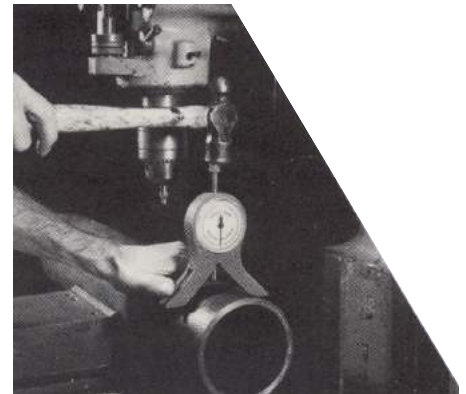
MIRACLE POINT DIAL PROTRACTOR WITH MAGNETIC BASE



The Miracle Point Model 345-10 Dial Protractor is a 360° angle finding, center locating and leveling instrument reading directly from 0° to 90° in any position with accuracy to three minutes of a degree.

Powerful lifetime Alnico V magnets at the base of the legs hold the instrument securely to steel fixtures or pipe permitting the user to work with both hands free.

When desired, the built-in center punch can be used to mark centers.



How to use your Miracle Point Dial Protractor:

- | | | |
|----------------|---|----------------------------------------------------------------------------------------------------------------------|
| Leveling | : | Place V legs flat on surface; adjust positioning until dial indicates 0° on upright or inverted scale. |
| Center finding | : | Place V legs astride work piece; rotate until dial indicates zero; tap center punch to mark center. |
| Angle setting | : | Place V legs astride work piece; rotate until dial indicates desired angle; tap center punch to mark angle position. |



Measures 135 x 130 x 25 mm.

Price on demand

MIRACLE POINT DIGITAL DIGITAL CENTERHEAD WITH MAGNETIC FEET



Typ 900- digital

- More precise than other centering head tools.
- Digital display resolution 0.1 degree / centering accuracy = +/- 0.5 degree 4x90 degree
- gives immediate reading of angles for 360-degree radius.
- Display .10 degree or % pitch per foot angle Absolute or relative measurement.
- N.I.S.T. traceable certificate included.
- The V base exerts a powerful magnetic pull to most any shape/form.
- The V base is precision milled and the center pin will show the middle point at the angle being indicated.
- use a protractor or center locator.
- Punch the center pin on the Centering Head to locate center at angle being indicated.
- one of the most accurate, and quickest ways to mark the center of round, square, hex, most any shape that fits into the V leg.
- great for metal fabrication, plumbing, welding, set up, drills, mills, lathes, benders and general leveling needs.
- includes 23 ounce hinged metal case.





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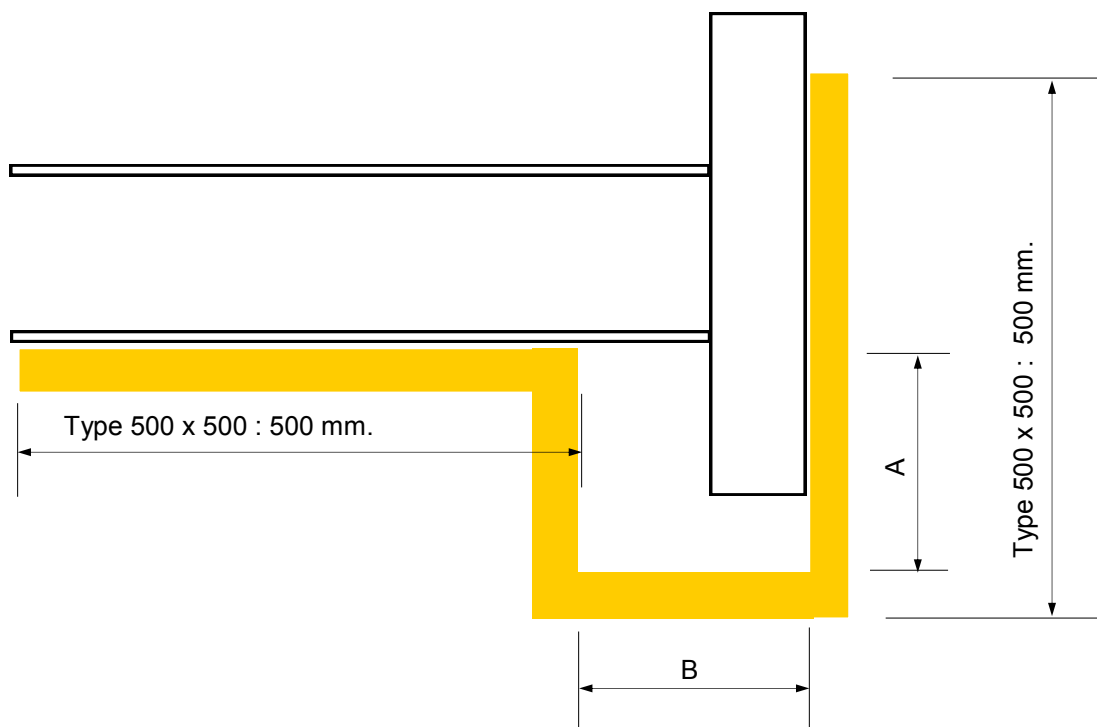
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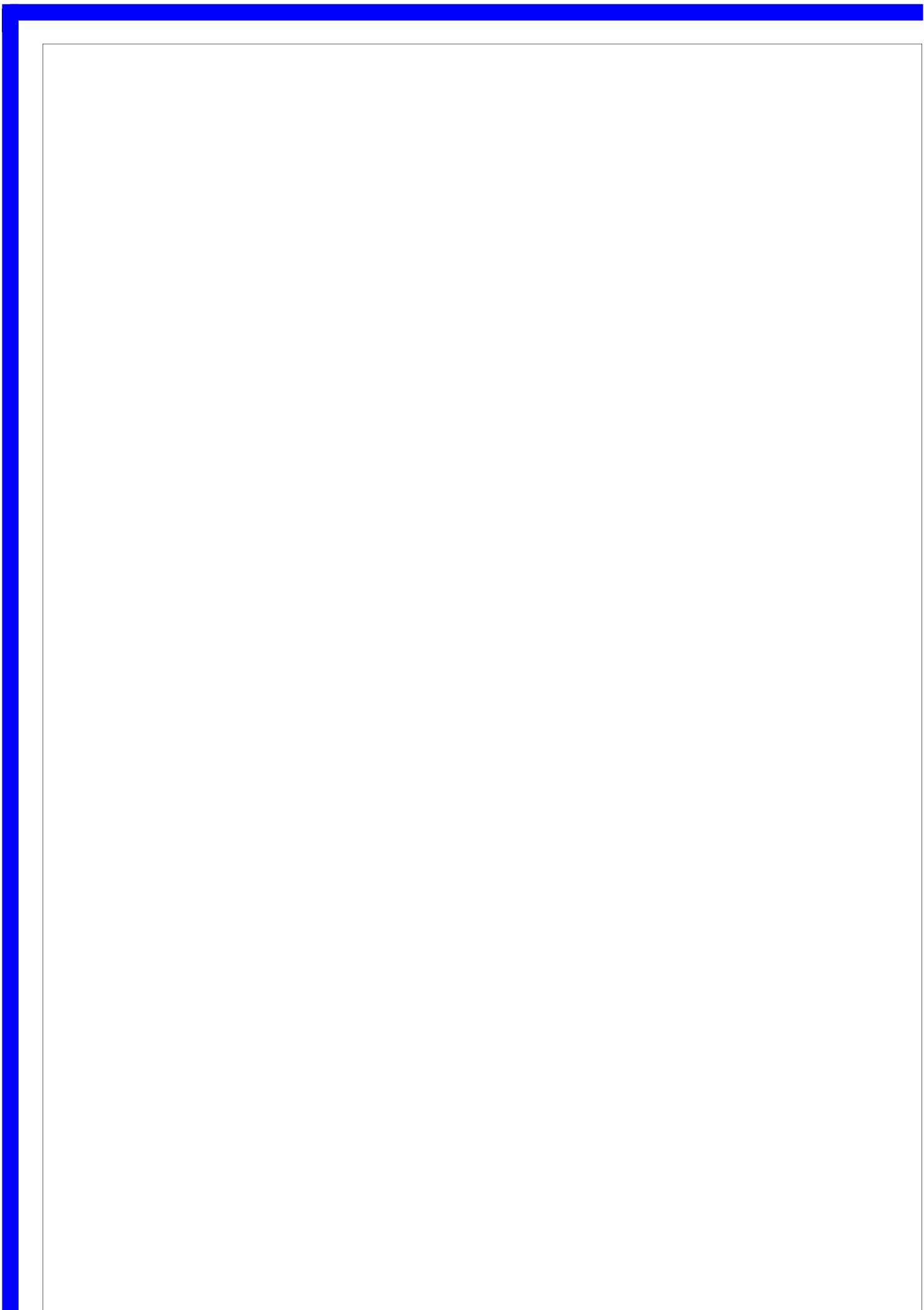
Flange squares

FLANGE SQUARES are for checking if the angle between the flange surface and the pipe is 90°. The flange squares are chrome finished, so no corrosion.



Size	Size A	Size B
300 x 300 mm.	104 mm.	65 mm.
500 x 500 mm.	130 mm.	83 mm.
600 x 600 mm.	130 mm.	83 mm.
800 x 800 mm.	140 mm.	100 mm.
1000 x 1000 mm.	158 mm.	137 mm.

Other sizes available on request





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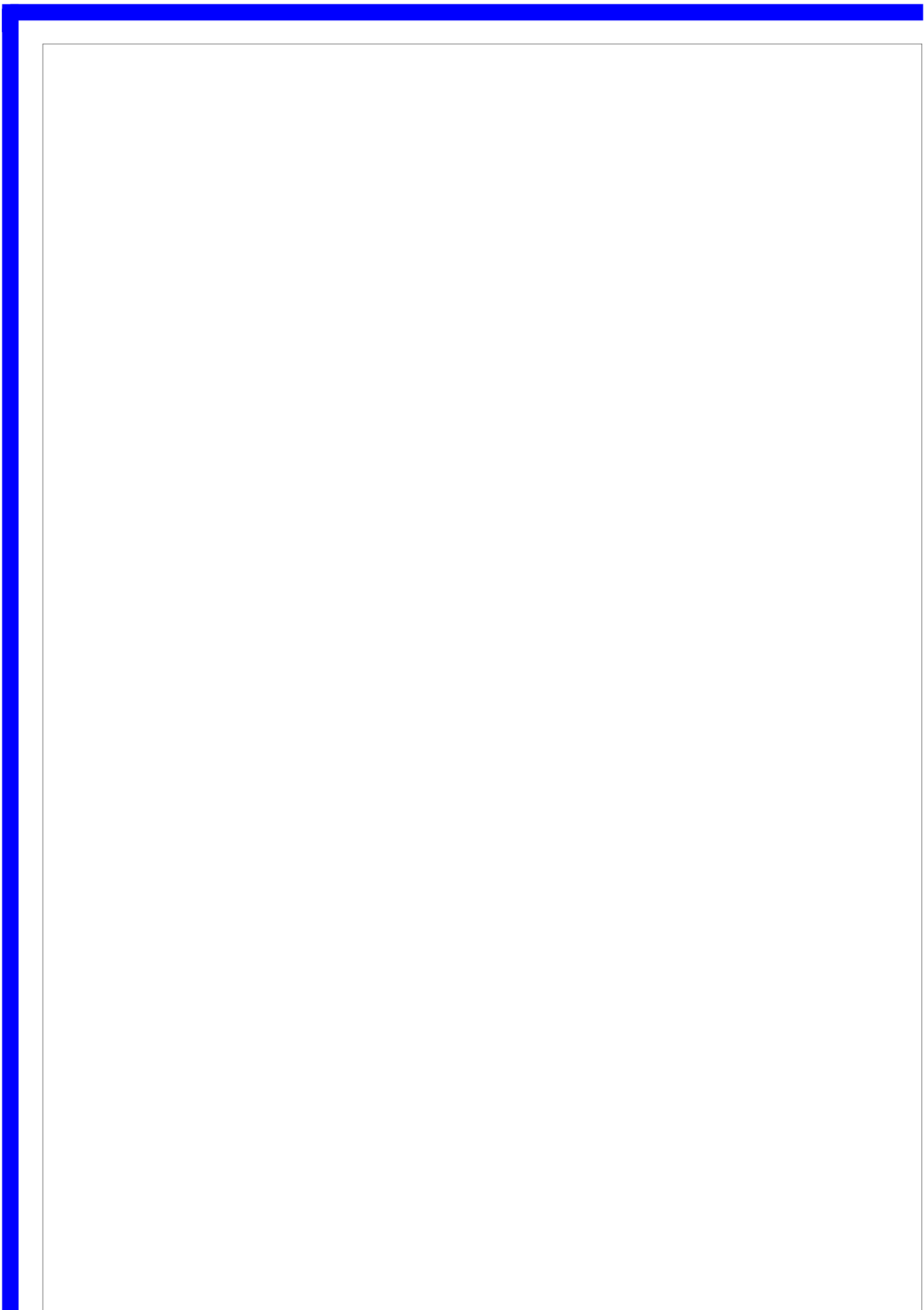
Squares

Squares to control and set the squareness of square angles.
The squares are made of chromed steel, so no corrosion.



Sizes	Item number
300 x 180 mm.	10.08.225.0021
400 x 230 mm.	10.08.225.0022
500 x 280 mm.	10.08.225.0025
600 x 330 mm.	10.08.225.0024
750 x 370 mm.	10.08.225.0015
1000 x 500 mm.	10.08.225.0023

Other sizes on request.





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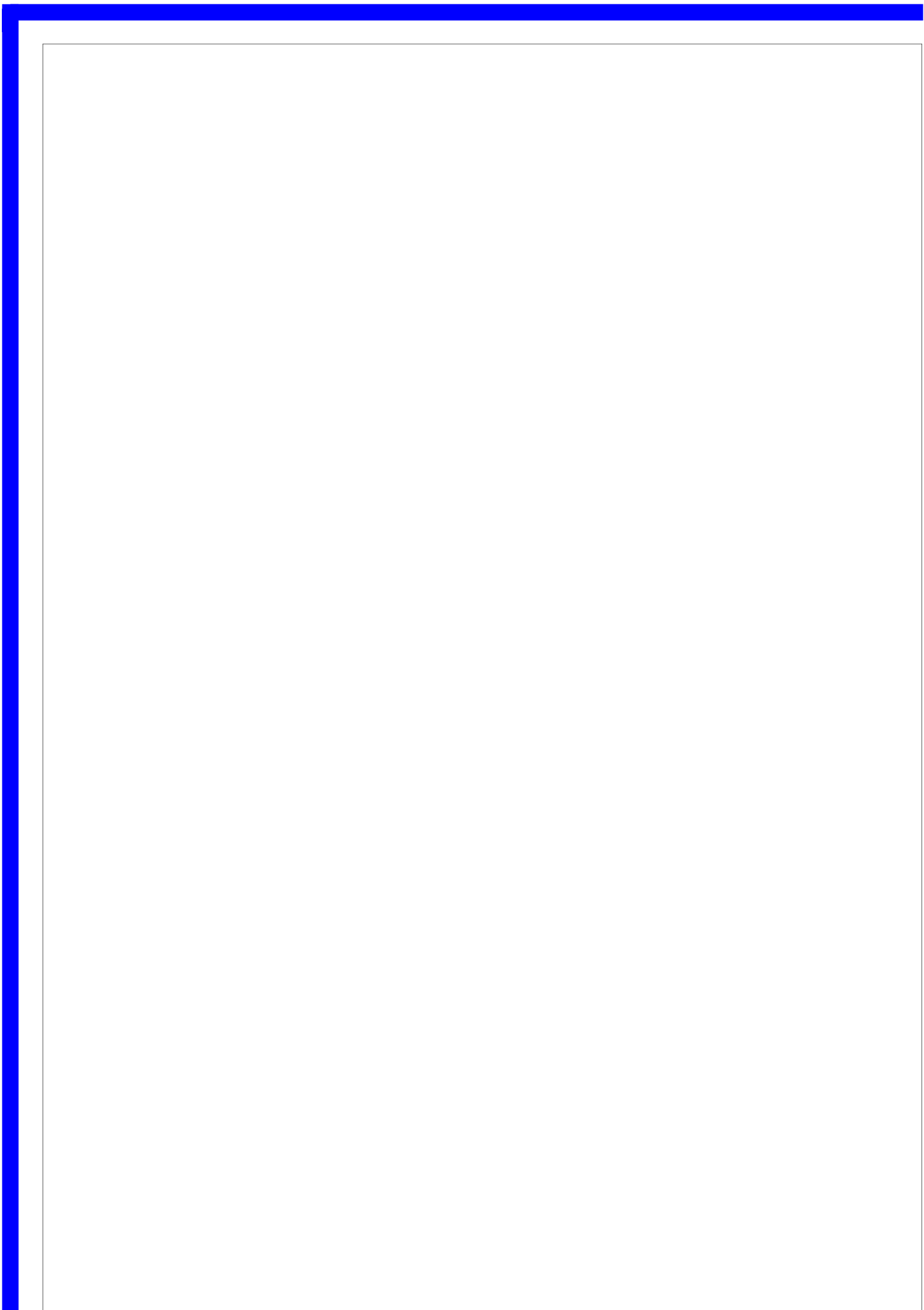
Pipediameter- circumference measuring tape

The circumference read simultaneously and the diameter with 1:10 mm accuracy.
16 mm wide stainless steel band with etched mm.

On the lower scale can be read off the circumference, at the top the diameter.
The circumference measuring devices are made of stainless steel.



Diameter	Circumference	Item number
20 - 300 mm	60 - 950 mm	10.08.207.0001
20 - 700 mm	60 - 2200 mm	10.08.207.0002
20 - 1200 mm	60 - 3780 mm	10.08.207.0003
20 - 1500 mm	60 - 4720 mm	10.08.207.0004
20 - 1900 mm	60 - 5980 mm	10.08.207.0005
20 - 2400 mm	60 - 7540 mm	10.08.207.0006
20 - 2700 mm	60 - 8500 mm	10.08.207.0007
20 - 3100 mm	60 - 9760 mm	10.08.207.0008
20 - 3600 mm	60 - 11310 mm	10.08.207.0009





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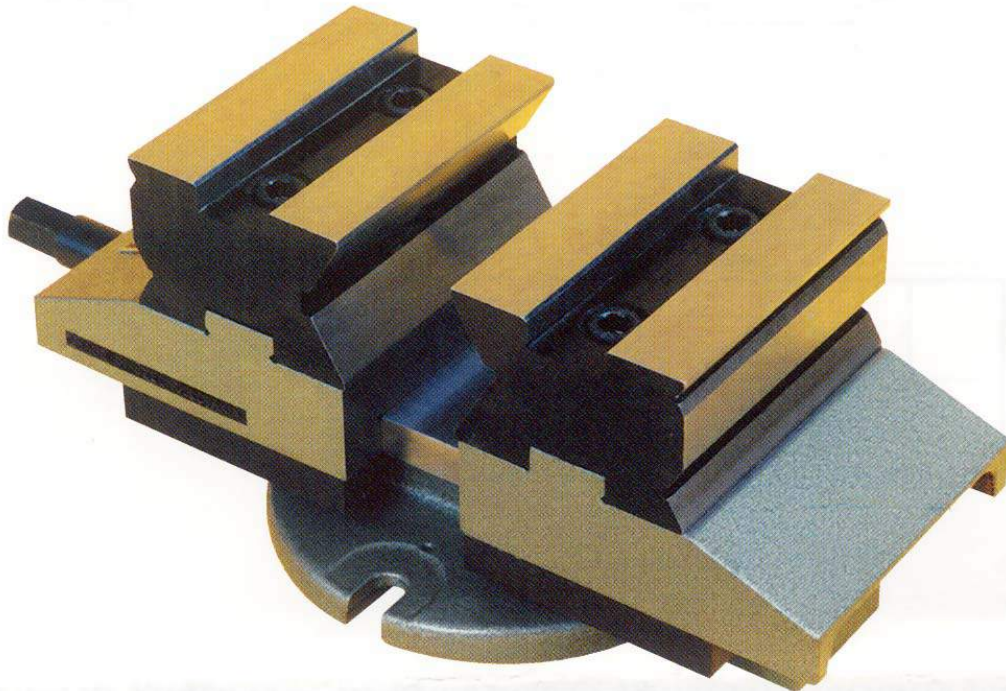
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Prism clamps



Prism clamps PK 1 and PK 2

The prism clamps are suitable for clamping of pipes and other cylindrical objects.

The clamps have a robust execution and are provided with hardened jaws.

Thanks to the reversible jaws the clamps can be used for a large range.

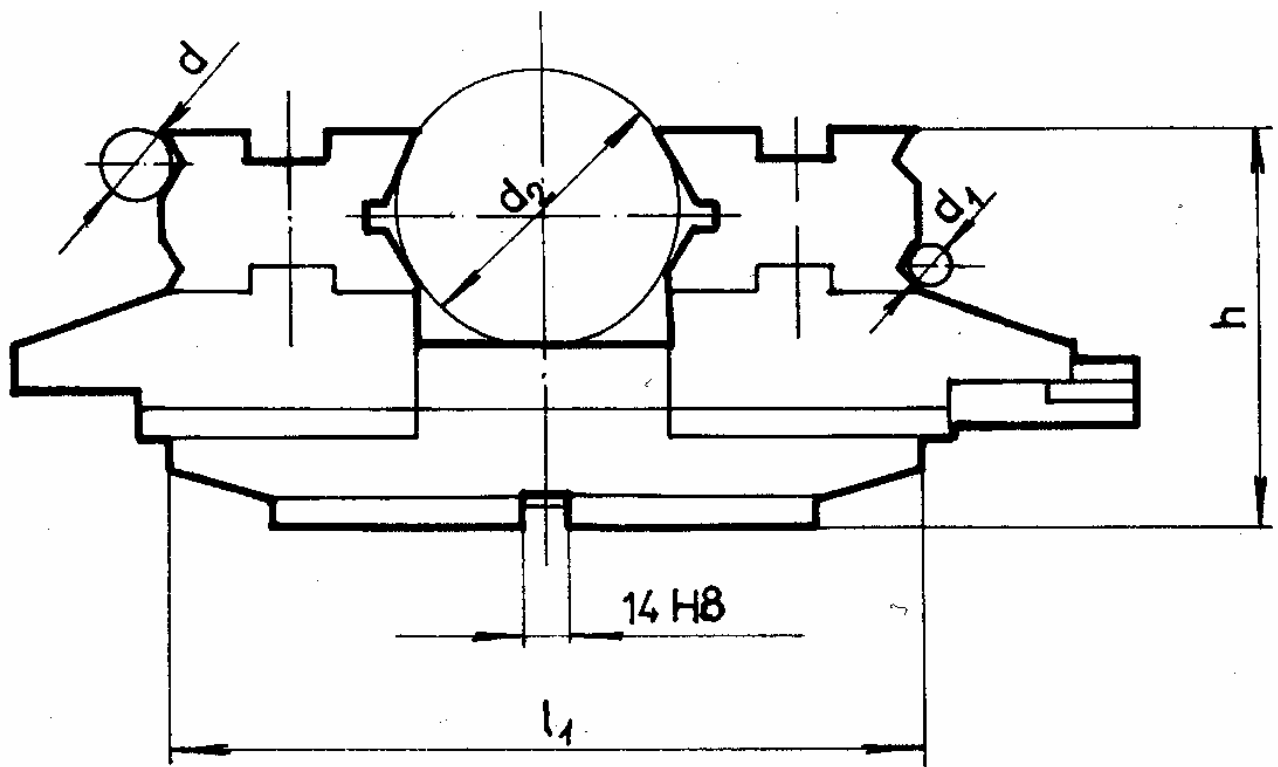
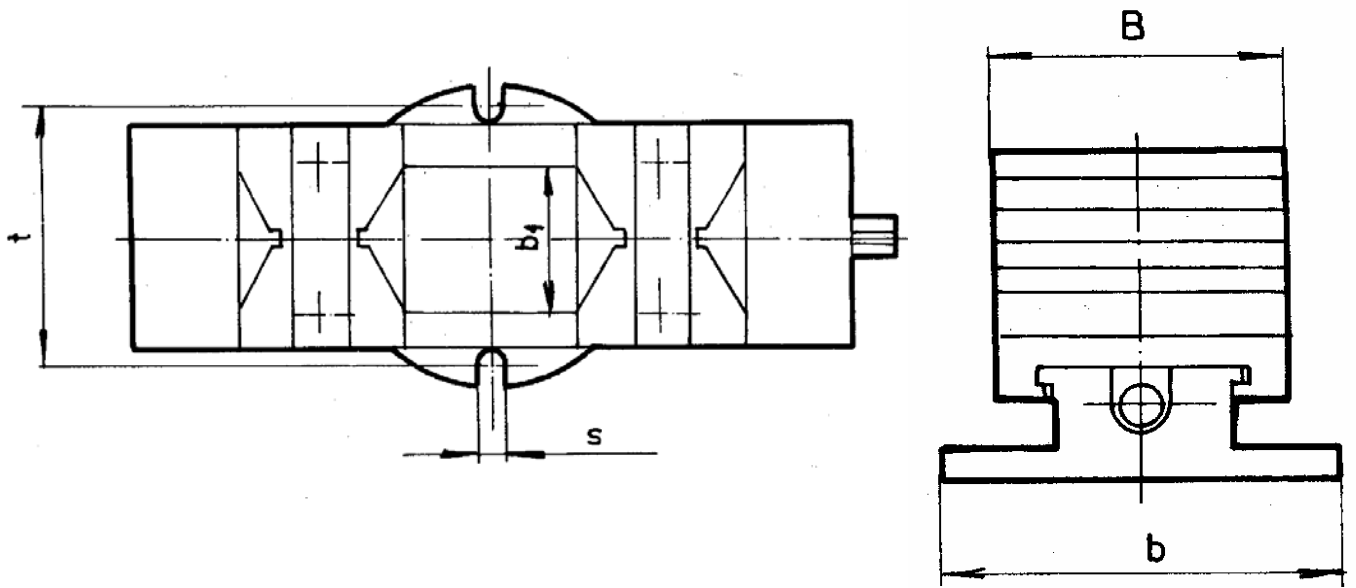
The prism clamps can be used for example:

- milling machines
- turning lathes
- boring machines
- pillar drilling machines

The clamp is also useable as bench vise.

Type	Jawwidth	Range Ø	Weight	Price 2003
PK 1	125 mm.	5 - 20 mm. 12 - 48 mm. 28 - 110 mm.	26 kg.	on demand
PK 2	200 mm.	25 - 100 mm. 46 - 180 mm.	90 kg.	on demand

Please turn over



B mm.	d1 mm.	d mm.	d2 mm.	h mm.	b mm.	b1 mm.	l1 mm.	t mm.	s mm.	KK* N
125	5-12	12-48	28-110	146	170	85	280	140	14	10000
200		25-100	46-180	230	280	145	280	232	22	35000

* KK = Clamping force



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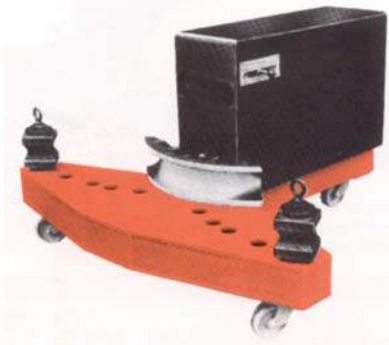
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Hydraulic Pipe Benders



1/2" to 2" N.B. / 15 - 50mm

- Heavy duty tube/pipe bending made easy with this motorised, Electric hydraulic bender producing 5000 psi/350 bar of bending force.
- Standard formers supplied for 90° bending, 1/2" to 2" N.B. / 15 - 50 mm.
- Optional 180° bending attachment for 1" to 2" N.B. sizes.
- Motor voltages available - 110v, 220v 50Hz single phase or 415v 50Hz three phase.



H3M - 1/2" to 3" N.B. / 15 - 80mm 4M & 4H - 1/2" to 4" N.B. / 15 - 100mm 5M & 5H - 1/2" to 6" N.B. / 15 - 150mm

- The H3M is a Single Ram heavy duty electric hydraulic tube/pipe bender. Capable of producing 5000psi/350bar of bending force.
- 4M & 4H is Twin Ram heavy duty electric hydraulic tube/pipe bender.
- 5M & 5H is Three Ram extra heavy duty electric hydraulic tube/pipe bender.
- Standard formers supplied for 90° bending.
- 5" & 6" N.B. formers are Clump type.
- Castor mounted for ease of movement. (optional).
- Motor voltages available - 110v, 220v 50Hz single phase or 415v 50Hz three phase.



NOTE

The 4H & 5H are 'HAND' hydraulic machines that have the same bending capacity as there 'M' series counterparts.

8M - 5" to 8" N.B. - 12M - 8" to 12" N.B.



The 8M & 12M are Beam type pipeline benders, and supplied with electric, diesel or petrol motors for shop or field operation. Constructed from bolted and welded mild steel plate to give a frame of immense strength, and mounted on either castors for easy shop movement or skids for field work.

NOTE

As with all segment bending large radius or 'sweep' bends only are possible.

TECHNICAL DATA	H2M		H3M	
	Metric	Imperial	Metric	Imperial
Max. Bending Centres	597mm	23.5"	1104mm	43.5"
Min. Bending Centres	270mm	10.6"	330mm	13.0"
Working Pressure	351.54 KGF/cm ²	5000 PSI	351.54 KGF/cm ²	5000 PSI
Effective Ram Area	25.8cm ²	4 sq. ins.	25.8cm ²	4 sq. ins.
Power Developed Forward	88.68 KN	8.9 Tons	88.68 KN	8.9 Tons
Power Developed Return	26.9 KN	2.7 Tons	26.9 KN	2.7 Tons
Ram Stroke	254mm	10"	508mm	20"

TECHNICAL DATA	4M & 4H		5M & 5H	
	Metric	Imperial	Metric	Imperial
Max. Bending Centres	1524mm	60"	1524mm	60"
Min. Bending Centres	610mm	24"	610mm	24"
Working Pressure	351.54 KGF/cm ²	5000 PSI	351.54 KGF/cm ²	5000 PSI
Effective Ram Area	51.6cm ²	8 sq. ins.	77.4cm ²	12 sq. ins.
Power Developed Forward	177.36 KN	17.8 Tons	276.00 KN	27.7 Tons
Power Developed Return	53.81 KN	5.4 Tons	80.71 KN	8.1 Tons
Ram Stroke	508mm	20"	508mm	20"

BENDING RADIUS DETAILS – ALL MODELS

Standard 90° one-shot formers											Segment formers				
Pipe	Ins.	½	¾	1	1¼	1½	2	2½	3	4	5	6	8	10	12
Size	m.m.	15	20	25	32	40	50	65	80	100	125	150	200	250	300
Centre	Ins.	2½	3½	4¼	5¼	6¼	8¼	11½	13¾	26½	5'0"	7'0"	8'0"	12'0"	40'0"
Radius	m.m.	64	80	108	134	158	210	292	350	672	1524	2134	2438	3656	12m

EXPORT SHIPPING DETAILS

H2M	Case size: 74 x 115 x 55cm	Gross weight: 126 kgs
H3M	Case size: 135 x 135 x 95cm	Gross weight: 375 kgs
4H/4M	Case size: 180 x 193 x 104cm	Gross weight: 800 kgs
5H/5M	Case size: 180 x 193 x 104cm	Gross weight: 890 kgs
8M	Case size: 300 x 137 x 178cm	Gross weight: 1500 kgs
12M	Case size: 300 x 137 x 178cm	Gross weight: 1950 kgs



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FLANGE SPREADERS

FLANGE SPREADER NO. 160

With this flange spreader is it possible to spread quick and secure two flanges from each other, after that the gasket can be changed.
After changing the gasket, the flanges will come back in exactly the same position.

MANUFACTURING PROCESS

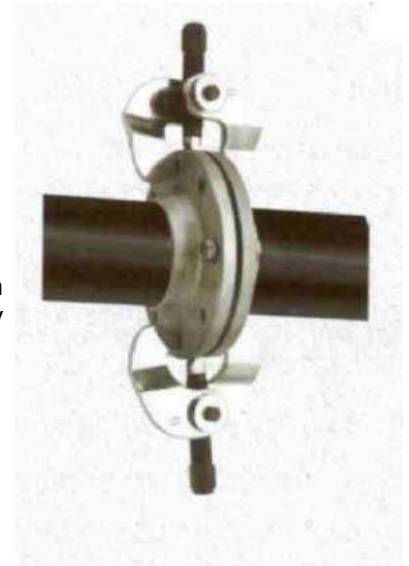
The flange spreaders are always used per pair.

Remove two opposite laying bolts out of the flange connection. Put the hooks from the flange spreader in the bolt holes and then tighten it until the spreaders will stay in position.

The remaining bolts can now be removed out of the flanges.

Through tighten both spindles at the same time, the flanges will be pushed out of each other at the same time, so there exists space between the flanges.
(important is that the spindles are always well greased).

After changing a gasket, the flanges will come to each other by untighten the spindles.



Flange spreader			For DIN-flanges	
Ordernr.	Price per 2 pieces	Weight p.p.	N.W.	Boltdiameter
160-1	on demand	5,20 kg	80-250 mm.	M 16-M 24
160-2	on demand	16,20 kg	250-1200 mm.	M 24-M 48

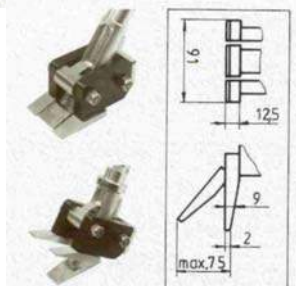
FLANGE SPREADER NO. 165

This spreader can not only be used for flanges but also for other parts.
It is suited for all kinds and measures.

MANUFACTURING PROCESS:

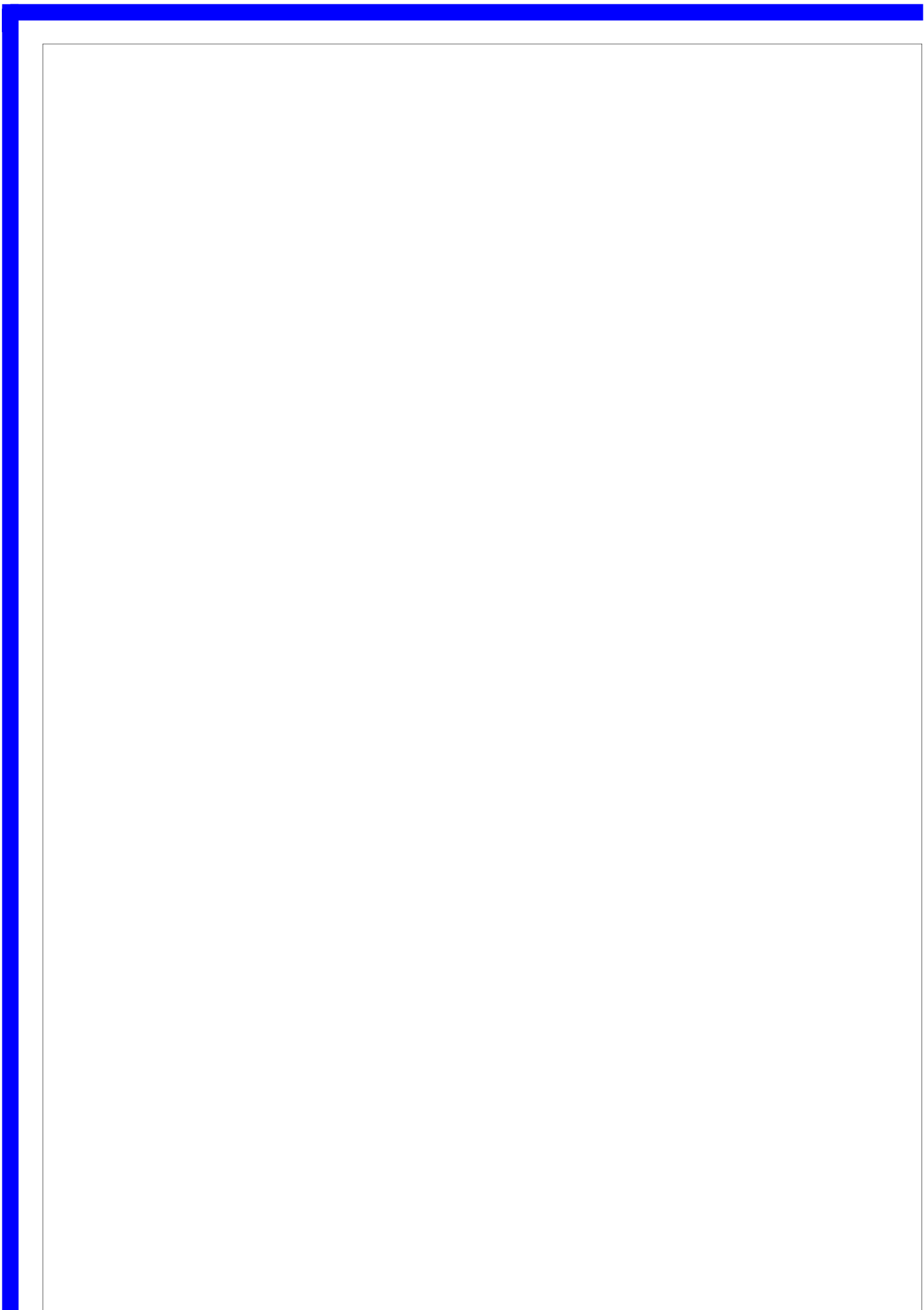
The flange spreaders are always used per pair.

Untighten the bolts from the flange connection. Place the spread mechanism from the flange spreader as deep as possible between the flanges, keep the spreader with one hand on its place. Serve the ratchet until the spreader is firm in position, repeat this procedure for the opposite side. After this procedure, the flanges can be spreaded by using the spreaders at the same time.



Ordernr.	Price	Weight	Spreadrange	Max. spreadpower
165-P	on demand	12,00 kg	75 mm. (3")	20 kN (2 ton)
165-E	on demand	6,00 kg		

Other executions and hydraulic served flange spreaders are on demand deliverable.





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AUTO—SPREADER



A 100H2 Hand Pump Operating a Pair Of HS10K's.

HS10K Hydraulic Flange Spreaders may be used in multiple units connected to a common pump. A load lowering valve controls the rate of travel. The optional *isolation valves* enable the operator to control each Auto-Spreader independently.

All HS10K's, pumps, hoses, and accessories are supplied with Quick Disconnects, filled and fully tested.

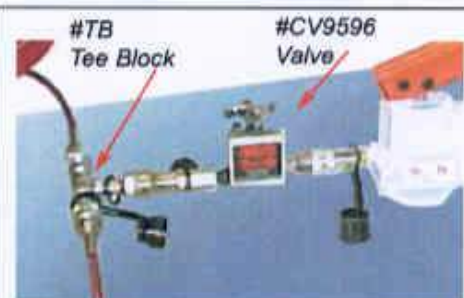


HS10K with HSCV Isolation Valve.



MS10K, Easy - One Man Operation.

100 ft-lbs of force on the MS10K's 18" Ratchet Handle provides 10,000 lbs. of spreading, lifting and leveling force.



Tee Block #TB and Load Lowering Valve #CV9596 for operating multiple HS10K's simultaneously.



MS10K leveling a machine tool.



The Auto-Spreader requires as little as 3/32" of gap to be inserted and provides 3" of travel in one operation.



AUTO—SPREADER



All flange spreaders are conveniently packed in a custom tool box.

Hydraulic or Manual
"One Size Fits All"

Specification	Imperial		Metric	
	HS10K	MS10K	HS10K	MS10K
Weight	12 lbs	13.5 lbs	5.4 kg	6.1 kg
Length	14"	13.25"	355 mm	336 mm
Width of Jaws	4.5"	4.5"	114 mm	114 mm
Width of Body	4.5"	4.5"	114 mm	114 mm
Jaws Closed	0.09"	0.09"	2.3 mm	2.3 mm
Jaws Open	3"	3"	76.2 mm	76.2 mm
Jaw Penetration	1.5"	1.5"	38.1 mm	38.1 mm
Rated Force	10,000 lbs	10,000 lbs	4535 kg	4535 kg

US Patent 5678293

Power Units - For Best Speed And Performance.



Model	Requirement	Max. Pressure	Oil Delivery	Valve	Reservoir Capacity (CI)	Dimensions & Weight	Included Accessories
100H2 Manual Single Speed	Hand Powered	10000 psi	.16 (cu.in./stroke)	Controlled Load Holding & Lowering	55	28" L 4.75" W 6" H 22 lbs.	Pair of 12 ft. hydraulic hoses, tee block & load lowering valve
150H2 or 150F2 Manual Two Speed	Hand Powered or Foot Powered	10000 psi	.65 @ 1400 psi .18 @ 10000 psi (cu.in./stroke)	Controlled Load Holding & Lowering	152	28" L 4.75" W 6" H 32 lbs.	Pair of 12 ft. hydraulic hoses, tee block & load lowering valve

Optional Air or Electric Driven Power Units Available Upon Request.
Additional accessories available separately.



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LEAK TEST DEVICES / VACUUMBOXES

Robust and suitable for construction sites, maintenance-free self-lubricating dry running vacuum pump with a high vacuum power. In a sturdy steel frame with two handles, complete vacuum gauge, vacuum regulator, air filter, dirt filter, water separator, waterproof motor protection switch and a 3 m power cable.

We also provide on request lubricated and maintenance-free vacuum pumps till 63 cbm / h.



WPT-4, WPT-8



WPT-10

Typ	Vacuum power m ³ /h	End vacuum kPa /mbar	Underpressure mbar	Electro motor kW	Sizes L x W x H mm	Weight kg
WPT-4	4,1	15 /150	Ca. - 850	0,19	320 x 300 x 270	12
WPT-8	8,0	15 /150	Ca. - 850	0,35	320 x 300 x 270	13
WPT-10	10	15 /150	Ca. - 850	0,37	440 x 200 x 400	29



Vacuum box oval:
Ca. 500 mm long,
Ca. 600 mm long,
Ca. 700 mm long.



Vacuum box 3x90° corner weld:
- Inner corner 3x 90°
Side length 3x 270 mm.
- Outside corner 3x 270° welding seam.



Vacuum box round:
Ø Ca. 125 mm,
Ø Ca. 250 mm,
Ø Ca. 400 mm.



Vacuum box mini 3x 90°
inner corner welding seam:
Side length 3x ca. 60 mm.
Wall height from appr. 40 mm.

Technical specifications



Vacuum box for pipe Ø mm:

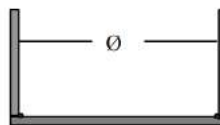
DN 25	DN 450
DN 32	DN 500
DN 40	DN 550
DN 50	DN 600
DN 65	DN 700
DN 80	DN 800
DN 100	DN 900
DN 125	DN 1000
DN 150	DN 1100
DN 200	DN 1200
DN 250	DN 1300
DN 300	DN 1400
DN 350	DN 1500
DN 400	DN 1600

Length mm.	Height difference	Plate
500	6 mm.	3-9 mm.
600	6 mm.	3-9 mm.
750	6 mm.	3-9 mm.
500	8 mm.	5-11 mm.
600	8 mm.	5-11 mm.
750	8 mm.	5-11 mm.
500	10 mm.	7-13 mm.
600	10 mm.	7-13 mm.
750	10 mm.	7-13 mm.

Vacuum box for overlap welding seam:



Vacuum box for rectangular round welding seam from tank diameter to flat plate:



Length mm.	Tank diameter
500	D 2250, 2000 - 2600
500	D 2800, 2500 - 3200
600	D 3450, 3100 - 3850
600	D 4050, 3600 - 4600
600	D 4900, 4250 - 5850
700	D 6500, 5400 - 8300
700	D 8750, 8000 - 10500
700	D 15000, vanaf 10000

In straight typ for straight corner welding seam 90°, available in lengths 500 - 600 - 750 mm.

In addition to these models, we can also offer boxes on special request.

RENTAL MACHINES 2020

Pipe end preparation machines

Type	Range (mm)	Motor (¹)	Weight	Rentalprice per week (²)	
	TU-2	18 till 46 mm I.D.	E or P	4,5 Kg	€ 180,-
	TU-3	27 till 106 mm I.D.	E or P	6,5 Kg	€ 190,-
	TU-5	52 till 215 mm I.D.	E or P	18 Kg	€ 360,-
	TU-6	100 till 400 I.D.	E or P	85 Kg	€ 625,-
	TU-12	120 till 605 I.D.	P	105 Kg	€ 850,-
	TU-D	6 till 61 mm O.D.	E or P	8 Kg	€ 220,-
	AM-6	40 till 166 mm I.D.	E or P	10 Kg	€ 425,-
	AM-12	100 till 330 mm I.D.	E or P	24 Kg	€ 625,-
	AM-18	100 till 460 mm I.D.	P	26 Kg	€ 625,-
	RPG 2.5 Facing Machine	3 till 63,5 mm O.D. Clamping collets separate rental	E	6,6 Kg	€ 137,50
	RPG 4.5 Facing Machine	12,7 till 114,3 mm O.D. Clamping collets separate rental	E	10,5 Kg	€ 175,-
	Air unit 1/2"		P	11 Kg	€ 50,-
	Air unit 3/4"		P	14 Kg	€ 75,-

(¹) Motor P is a pneumatic motor for 6 Bar (compressed air volume differs per machine).
Motor E is a electronic motor 220 Volt.

(²) Rental price is exclusive transport costs and cutting tools. The minimum rental period is one week.
(One week is five working days).

Machines for bigger diameters on request.

RENTAL MACHINES 2020

Stationary pipe end preparation machines



Type	Range (mm)	Motor (¹)	Weight	Rental price per week (²)
SNE-76	8 till 76 mm O.D.	E	120 Kg	€ 625,-
PBM-6	46 till 180 mm O.D.	E	1400 Kg	€ 750,-
PBM-16	60 till 430 mm O.D.	E	2400 Kg	€ 1.000,-

(¹) Motor E is a electronic motor 400 Volt.

(²) Rental price is exclusive transport costs and cutting tools.

The minimum rental period is three days. (One week is five working days).

Polishmachine



Type	Feed	Motor	Weight	Rental price per week (²)
TPP-509S	By hand	Pneumatic	3,5 Kg	€ 90,-

(²) Rental price is exclusive transport costs and brushes. The minimum rental period is one week.

(One week is five working days).

Flame cutting machines



Type	Range (mm)	Motor (¹)	Weight	Rental price per week (²)
Picle-1	Upward of 114 mm	By Hand	15 Kg	€ 120,-
Band bevel	Upward of 250 mm	E	45 Kg	€ 225,-
Band - crawler	Upward of 168 mm	By Hand Or Electronic	12 Kg	€ 100,-

(¹) Motor E is a electronic motor 220 Volt with remote control.

(²) Rental price is exclusive transport costs, bands and cutting tips. The minimum rental period is one week.

(One week is five working days).

RENTAL MACHINES 2020

Pipe cutting and beveling machines



Type	Range (mm)	Motor (¹)	Weight	Rental price per week (²)
R-4 / RA-4 / GF-4	20 till 120 mm O.D.	E	78 Kg	€ 130,-
AXXAIR CC121 ECO	5 till 121 mm O.D.	E	36 Kg	€ 130,-
PS 4.5	6 till 121 mm O.D.	E	23 Kg	€ 130,-
AXXAIR CC171	16 till 171 mm O.D.	E	44 Kg	€ 170,-
R-6	85 till 182 mm O.D.	E	95 Kg	€ 170,-
GF-6	21,3 till 168,3 mm O.D.	E	95 Kg	€ 170,-
RA-8 MVM	114 till 230 mm O.D.	E	103 Kg	€ 215,-
RA-12 MVM	154 till 325 mm O.D.	E	139 Kg	€ 300,-
Workbench GF	Sizes: 100 x 70 x 85 cm	-	30 Kg	€ 30,-
Roller Support GF	Total length: 5,50 meter	-	500 Kg	€ 350,-
Transportable inox GF bench	Sizes: 114 x 53 x 105 cm	-	43 Kg	€ 80,-

(¹) Motor E is a electronic motor 220 Volt.

(²) Rental price is exclusive transport costs and cutting blades. The minimum rental period is one week. (One week is five working days).

Plastic Pipe cut and bevel machine



Type	Range	Motor	Weight	Rental price per week (²)
EXACT PIPECUT P400	100 till 400 mm O.D. (only plastics)	E	6 Kg	€ 100,-

(¹) Motor E is a electronic motor 220 Volt.

(²) Rental price is exclusive transport costs and cutting blades. The minimum rental period is one week. (One week is five working days).

RENTALMACHINES 2020

Pipe cutting machines



Type	Range (mm)	Motor (¹)	Weight	Rental price per week (²)
EXACT PIPECUT 170E	15 till 170 mm O.D.	E	5,7 Kg	€ 85,-
EXACT PIPECUT 200 / 220E	15 till 200 mm O.D. 15 till 220 mm O.D.	E	6 Kg	€ 100,-
EXACT PIPECUT 280E 280PRO	40 till 280 mm O.D.	E	9 Kg	€ 150,- € 190,-
EXACT PIPECUT 360 / 360E 360PRO	75 till 360 mm O.D.	E	14,3 Kg	€ 160,- € 220,-

(¹) Motor E is a electronic motor 220 Volt.

(²) Rental price is exclusive transport costs and cutting blades. The minimum rental period is one week. (One week is five working days).

Sheet bevelling machines



Type	Bevel angle	Cutting speed (¹)	Weight	Sheet thickness	Rental price per week (²)
CHP-7	22,5° - 30° 37,5° - 45°	1,6 mtr/min	34 Kg	3 till 16 mm	€ 170,-
CHP-12	22,5° - 30° 37,5° - 45°	2,6 mtr/min	65 Kg	5 till 40 mm	€ 195,-
CHP-21G	22,5° - 45° adjustable	1,8 mtr/min	425 Kg	9 till 50 mm	€ 830,-
CHP-60G	15° - 70° adjustable	70-210 mm/ min	790 Kg	10 t/m 70 mm	€ 1.400,-

(¹) Motor E is a electronic motor 400 Volt.

(²) Rental price is exclusive transport costs and milling tools. The minimum rental period is one week. (One week is five working days).

RENTALMACHINES 2020

Sheet beveling machines, manual operated



Type	Bevel length	Motor (¹)	Weight	Quantity inserts	Bevel angle	Rental price per week (²)
Kohle 2014	8 mm at 30°	E	3,3 Kg	8	30°, 45°, 60° and radius	€ 120,-
Kohle 2023	14 mm at 30°	E	7,5 Kg	16	30°, 45°, 60°	€ 160,-

(¹) Motor P is a pneumatic motor for 6 Bar, Motor E is a electronic motor 220 Volt.

(²) Rental price is exclusive transport costs and inserts. The minimum rental period is one week. (One week is five working days).

Pipe manipulation



Type	Pipediameter	Feed	Weight	Rental price per week (¹)
WB Pipe jack	2" - 12"	Does not apply	Load capacity 950 Kg	€ 20,-
WRB 2-12 Mini	2" - 12"	By hand	20 Kg Load capacity 1500 Kg	€ 20,-
WRB 3-24 Roller bench	3" - 24"	By hand	32 Kg Load capacity 1500 Kg	€ 35,-
Undercarriage WRB 3-24	Does not apply	Does not apply	29 Kg Load capacity 1500 Kg	€ 35,-

(¹) Rental price is exclusive transport costs and inserts. The minimum rental period is one week. (One week is five working days).

High pressure testing pump



Type	Test pressure	Dim. reservoir	Weight	Rental price per week (¹)
D320	320 Bar	490x330x330 mm	18 Kg	€ 100,-

(¹) Rental price is exclusive transport costs and inserts. The minimum rental period is one week. (One week is five working days).

RENTALMACHINES 2020

CTO pipecut- and bevelmachines



Type	Motor (1)	Range	Rental price per week (2)
CTO	P / E / H	4" - 73" (260 - 1850 mm) Other sizes on request	On request

(1) Motor P is a pneumatic motor for 6 Bar, Motor E is a electronic motor 220 Volt. Motor H is hydraulic.

(2) Rental price is exclusive transport costs and cutting tools. The minimum rental period is one week. (One week is five working days).

Pipecut machine for bigger diameters From 168 mm till "endless"



Type	Range	Motor	Weight	Rental price per week (1)
WB PIPE CUTTER	From 168 mm O.D. With blade Ø 160 From 219 mm O.D. With blade Ø 180	Pneumatic	12,5 Kg	€ 420,-

(1) Rental price is exclusive transport costs and cutting blades. The minimum rental period is one week. (One week is five working days).

Oxygen monitor



Type	Range	Weight	Rental price per week (1)
Pro-Ox 100	100 - 250.000 ppm O ²	1.53 Kg incl. case	€ 40,-

(1) Rental price is exclusive transport costs. The minimum rental period is one week. (One week is five working days).

RIM & Ultra RIM pipe adjusting- and reforming clamps



Type	Pipe diameter	Weight	Rental price per week (1)
Several	4" t/m 72"	18 tot 432 Kg	On request

(1) Rental price is exclusive transport costs. The minimum rental period is one week. (One week is five working days).

Lockable transportable storage systems

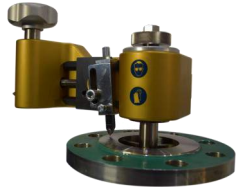


Size inside	Size outside	Weight	Rental price per week (1)
1140 x 570 x 570 mm	1220 x 610 x 730 / 920	80 Kg	€ 30,-

(1) Rental price is exclusive transport costs. The minimum rental period is one week. (One week is five working days).

RENTALMACHINES 2020

Portable machine tools



Type	Range	Clamping range I.D.	Rental price per week (*)
MFF Mini Flange Facer	25 - 356 mm	25 - 252 mm	€ 300,-

(*) Rental price is exclusive transport costs and tools. The minimum rental period is one week.
(One week is five working days).



Type	Range	Weight	Rental price per week (*)
Boring bar machines	38 - 2161 mm	90 - 487 Kg	On request
Flange facing machines	Ø 0 - 3048 mm	50 - 1400 Kg	On request
Key milling machines	Ø 38 - 800 mm	45 - 114 Kg	On request
Milling machines	200 x 500 / 2800 x 3600	290 - 2035 Kg	On request
Shaft turning machines	Ø 38 - 610 mm	110 - 250 Kg	On request
Valve lapping machines	Ø 32 - 1000 mm	30 - 33 Kg	On request
Bore welding machines	Ø 70 - 990 mm	10 - 48 Kg	On request

(*) Rental price is exclusive transport costs and tools. The minimum rental period is one week.
(One week is five working days).

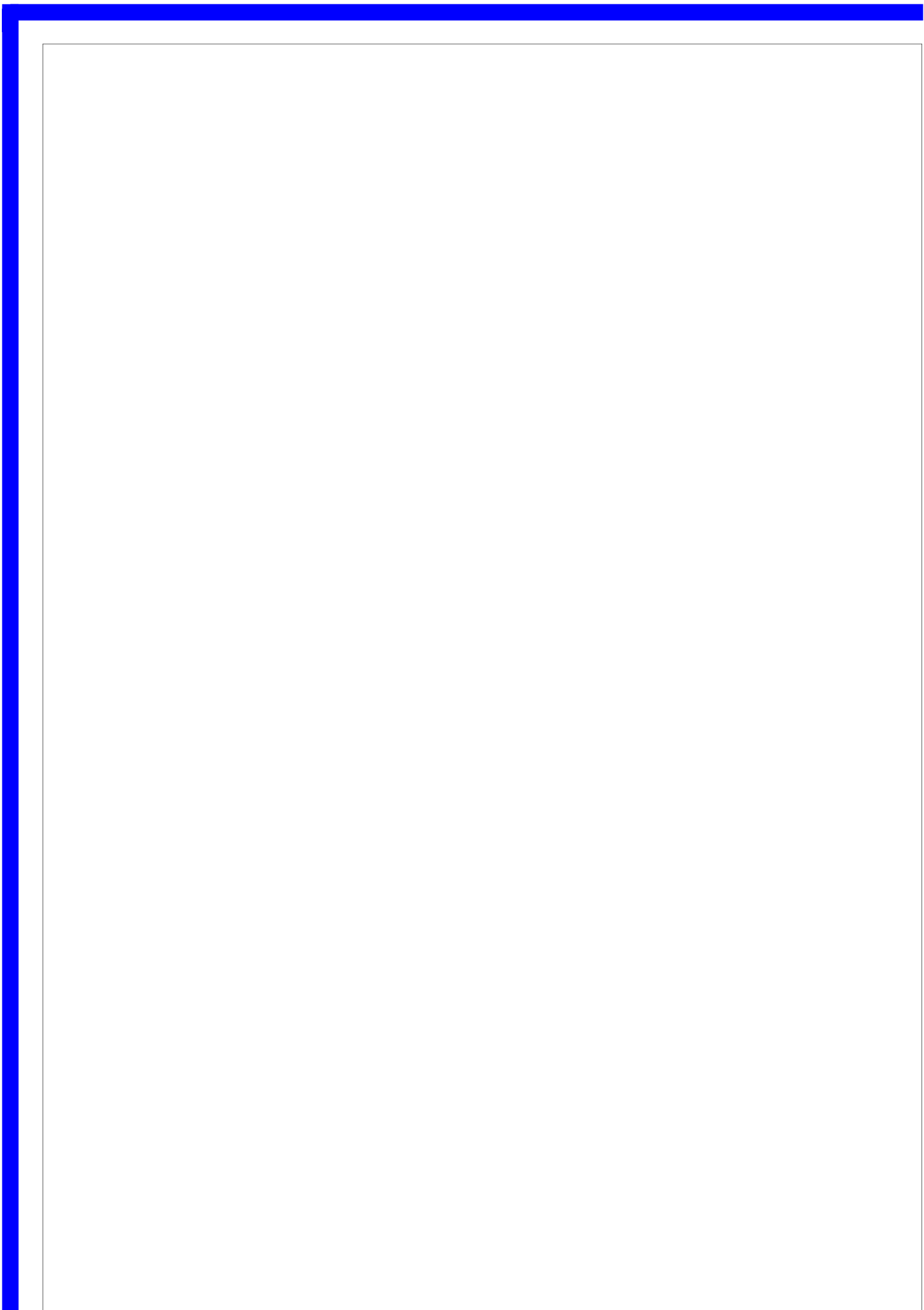
Pipe grinder



Type	Grind range	Weight	Rental price per week (*)
Almi AI 150 HS	Ø 20 - 114,3 mm	270 Kg	€ 235,-

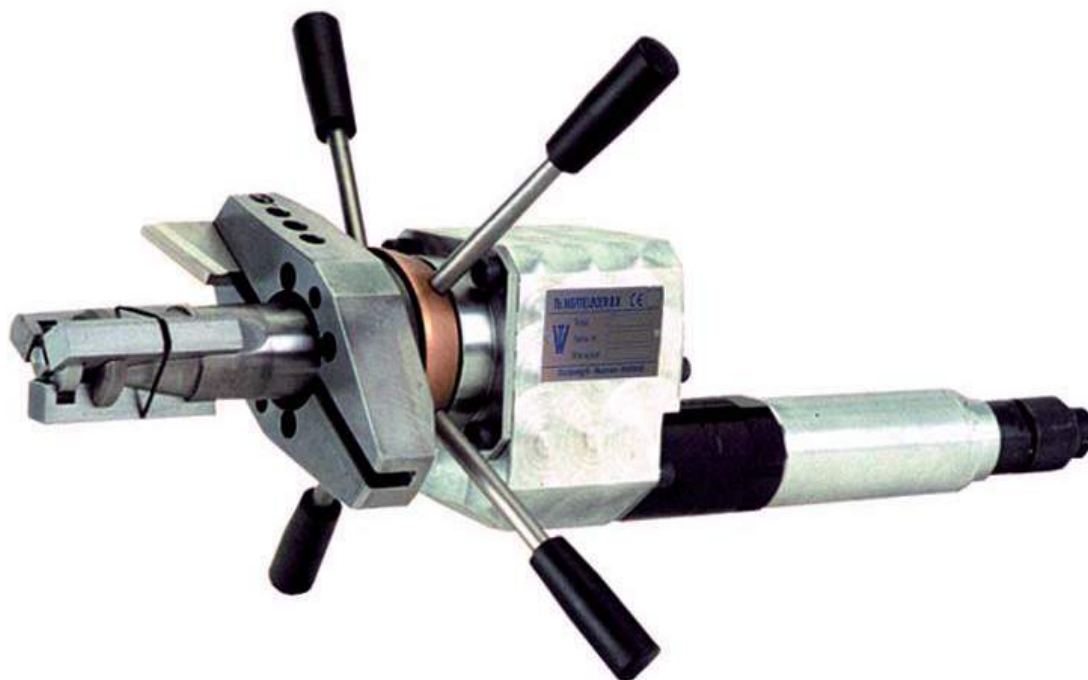
(*) Rental price is exclusive transport costs, grinding belts and grinding rollers. The minimum rental period is one week.
(One week is five working days).





AM-6 PIPE END PREPARATION MACHINE

clamping range 40 to 166 mm I.D.

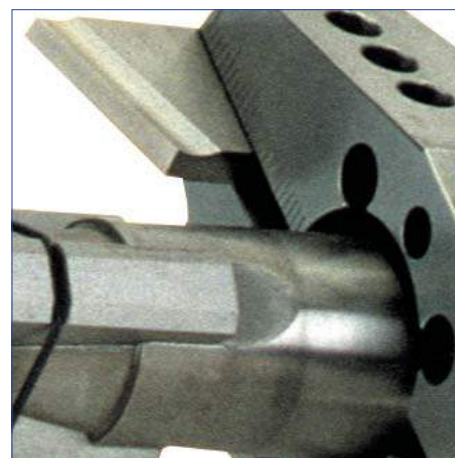


- large machining capacity • robust shape
- fast and safe clamping • easy to handle

The AM-6 pipe end preparation machine is available in several varieties. For example a square version with a motor that is mounted on the body under 90° (not presented here). The machine can be selected with a pneumatic drive or an electric drive.

The AM-6 has a low weight and is easy to operate by one person. The machine can be used in workshops as well as on site.

Due to the compact shape the AM-6 is excellent for situations with limited working space.

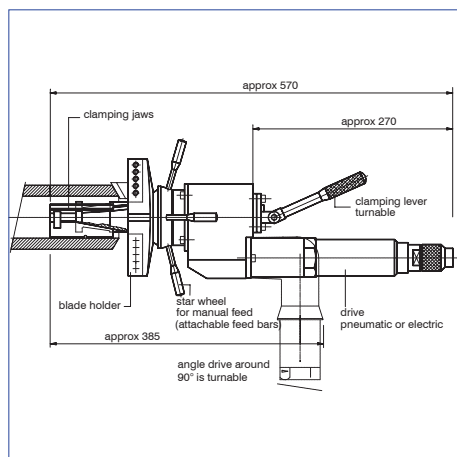


for

- heat exchanger manufacturing • offshore constructions
- apparatus manufacture • equipment constructions
- shipbuilding • machine construction • pipeline construction

AM-6 technical specifications

AM-6	general specifications
clamping range	minimum 40 mm I.D.
	maximum 166 mm I.D.
wall thickness	maximum 25 mm
feed length	maximum 15 mm (manual)
welding forms	I-bevel (facing), V-bevel or J-bevel
AM-6E	with electrical motor
Power	1200 W (motor met variabele toerenregeling)
Voltage	230Volt - 50Hz - 1ph (also available in 110 Volt version)
Protection class	II - fully protected
Weight	11 Kg
AM-6P	met pneumatical motor
Power	740 W (at 6 Bar working pressure)
Working pressure	6 - 7 Bar
Air consumption	0,96 m ³ /min
Connection	R 1/4"
Weight	10 Kg



In the standard version the machine is clamped into the pipe by using the clamping lever. The manual feed is done by means of the star wheel. Through this the machine is quick and easy to operate.

If you like both the feed lever and the star wheel can be replaced by an optional ratched (see drawing).

For the AM-6 there is a reducing set available for the clamping reach of 25 to 40 mm. This set exists of a small axe, clamping jaws and a reduced tool head.

AM-6 base kit' exists of:

AM-6 pipe end preparation machine, incl. axe nr. 2

Clamping jaws set nr. 2, range 40-166 mm

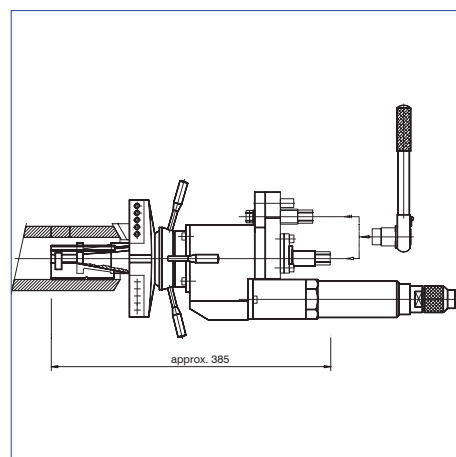
Tool head nr. 2, turning range till 168 mm O.D.

Set O-rings

Set screw drivers

Steel box

(¹) available with an electro- or pneumatic motor





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AM-12 PIPE END PREPARATION MACHINE

clamping range 100 to 330 mm I.D.



- very large machining capacity
- robust build
- fast and safe clamping
- easy to handle

The AM-12 pipe end preparation machine has a large machining capacity. The machine is at choice available with two pneumatic motors or one electrical motor. As an option the AM-12 can be supplied with a motor which is mounted square on the body.

The AM-12 can easily be operated by one person and is suitable for workshop as well as on site.

Due to the compact build the AM-4 is excellent for situations with limited working space.

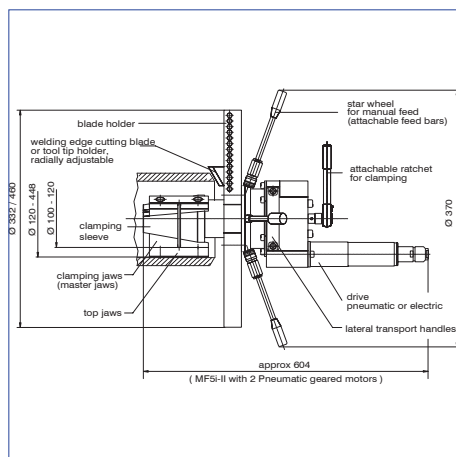


for

- heat exchanger manufacturing
- offshore constructions
- apparatus manufacture
- equipment constructions
- shipbuilding
- machine construction
- pipeline construction

AM-12 technical specifications

AM-12	general specifications
clamping range	minimum 100 mm I.D.
	maximum 330 mm I.D.
wall thickness	maximum 30 mm
feed length	maximum 30 mm (manual)
welding forms	I-bevel (facing), V-bevel or J-bevel
AM-12E	with 1 electrical motor
Power	2400 W (motor with variable speed)
Voltage	230Volt - 50Hz - 1ph (also available in 110 Volt version)
Protection class	II - fully isolated
Weigth	28 Kg
AM-12P	with 2 pneumatical motors
Power	1480 W (at a working pressure of 6 Bar)
Working pressure	6 - 7 Bar
Air consumption	1,92 m ³ /min
Connection	R 1/4"
Weight	24 Kg



In the standard version the machine is clamped into the pipe by using the clamping lever. The manual feed is done by means of the star wheel. Through this the machine is quick and easy to operate.

If you like both the feed lever and the star wheel can be replaced by an optional ratched (see drawing).

As an option the AM-12 pipe end preparation machine can be supplied with a square mounted motor (see below drawing).

AM-12 base kit¹ exists of:

AM-12 pipe end preparation machine, incl. axe nr. 2

Clamping jaws base set, range 100-120 mm I.D.

Clamping jaws top set, range 120-380 mm I.D.

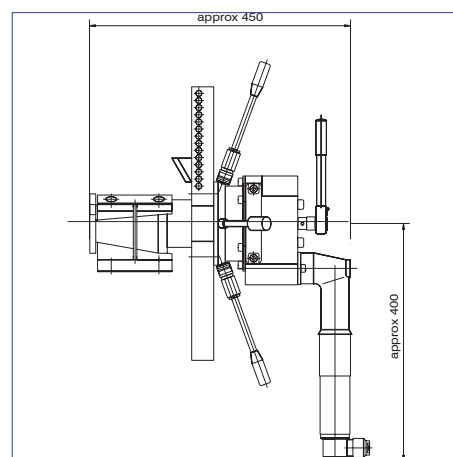
Tool head, turning range 100 till 320 mm O.D.

Set O-rings

Set screwdrivers

Wooden box

(¹) available with an electric or pneumatic motor





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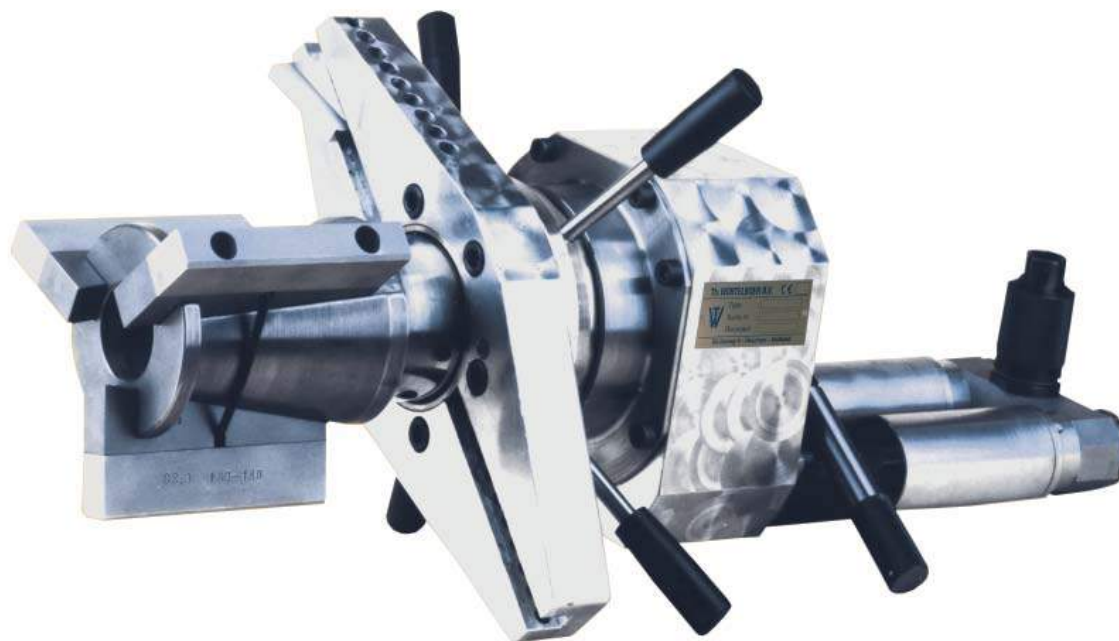
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AM-18 PIPE END PREPARATION MACHINE

clamping range 100 to 460 mm I.D.



- very large machining capacity
- robust shape
- fast and safe clamping
- easy to handle

The AM-18 pipe end preparation machine has a large machining capacity. The machine is provided with two pneumatic motors. As an option the AM-18 can be supplied with a motor which is mounted square on the body.

The AM-18 can easily be operated by one person and is suitable for workshop as well as on site.

Due to the compact shape the AM-18 is excellent for situations with limited working space.

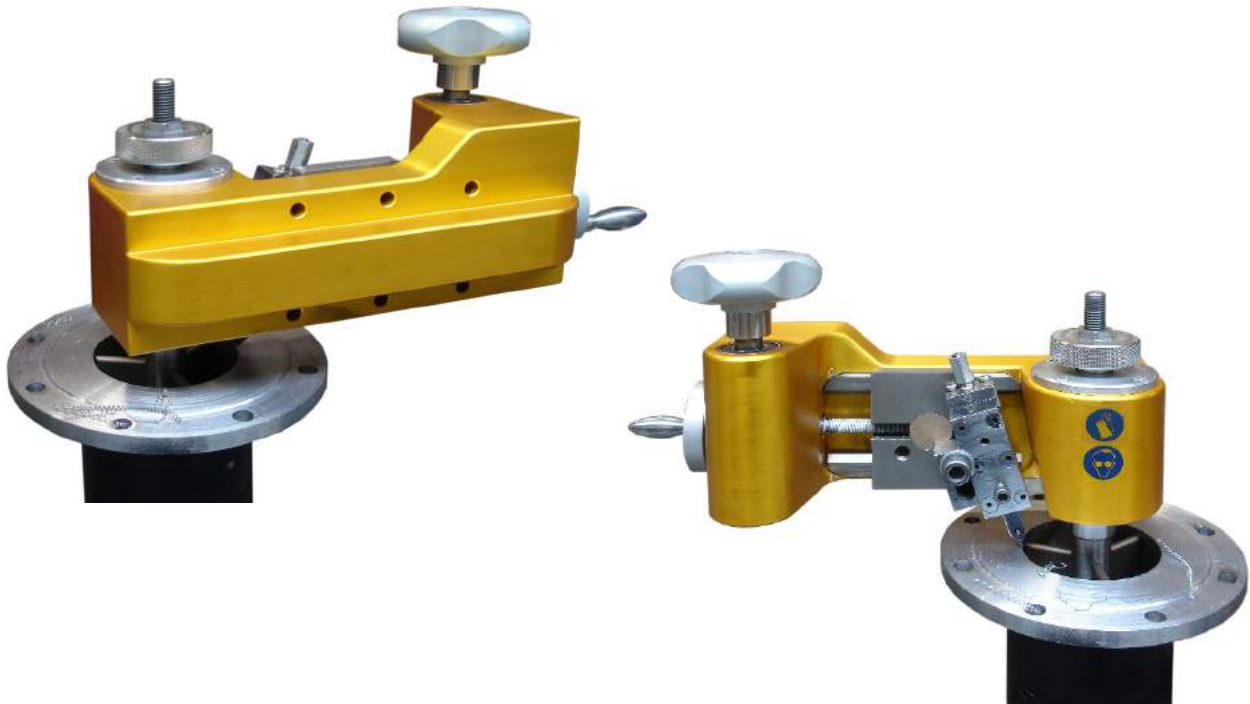


for

- heat exchanger manufacturing
- offshore constructions
- apparatus manufacture
- equipment constructions
- shipbuilding
- machine construction
- pipeline construction

MFF MINI FLANGE FACER

hand powered flange face machine for 25.4 till 450 mm



- motorloos flange face machining • easy to operate
- 100% explosion safe • short machining times

Damaged flange facings can be repaired with the manual operated MFF Mini Flange Facer. By turning the machine by hand, the tool moves back and forward. The quality of the finish depends on the choice of the spindle. The MFF is supplied with two spindles. One for smooth finish and one for stock finish.

The machining capacity goes from 25.4 till 450 mm. By means of exchangeable clamp sets it is possible to clamp internally over a range of 25 till 160 mm.



for

- heat exchanger manufacturing • offshore constructions
- apparatus manufacture • equipment constructions
- shipbuilding • machine construction • pipeline construction

technical specifications MFF flange facer

Model	MFF
Drive	manual (the rotating movement for cutting also provides the feed)
Feed tool	mechanical (by means of a spindle that is connected with the rotation)
Number of spindles	2 spindles (for smooth finish or stock finish)
Minimum clamping range I.D.	25 mm
Maximum clamping range I.D.	160 mm
Minimum turning range	25,4 mm
Maximum turning range	450 mm
Weight	6,3 Kg

The MFF works fast and safe. Its perfect to work in areas where there is a danger for explosion.

The changable clamp sets are easy to mount on the machine with the tools that come along. The cutting tools are very easy to position.

While moving the machine around by hand the flange facings are machined surprisingly fast.



The MFF comes in a strong case that includes two spindles (for smooth finish and stock finish), hand tools and a set of cutting tools.

Informeer naar de mogelijkheden van de MFF flensvlakker or ask for a demonstration.





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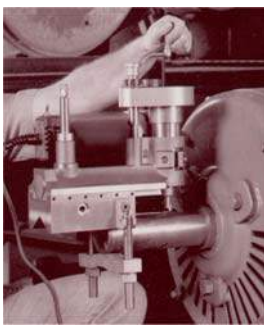
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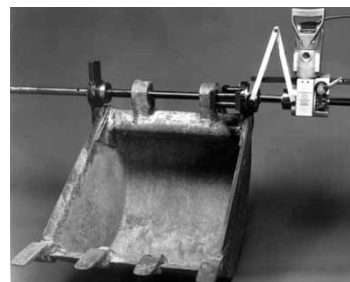
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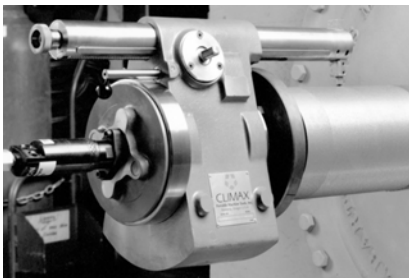
Climax Portable Machine Tools



Key mills



Boring bars



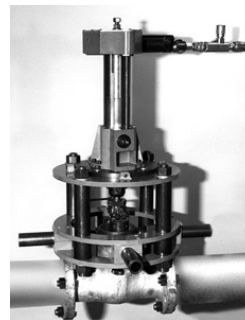
Lathes



Milling machines



Flange Facers



Valve repair machines



Valve lapping and grinding



**Stationary
Valve lapping and grinding**

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