PREP 16 PIPE BEVELLING MACHINE



2.8 - 15.74" i/d / 72 - 400 mm i/d

ORIGINAL INSTRUCTIONS / NOTICE ORIGINAL





www.TAG-PIPE.com



INTRODUCING THE S.F.E. GROUP



The **Specialized Fabrication Equipment Group** (in short: **S.F.E. Group**) was founded in 2019 after the merger of three world leading OEM's in the field of pipe fabrication tooling and machinery: B&B Pipe and Industrial Tools LLC (USA), Mathey Dearman Inc. (USA) and TAG Pipe Equipment Specialists (UK). In a time span of 5 years, another 4 renowned and market leading companies were acquired and added to the **S.F.E. Group** portfolio: Axxair (France, 2022), Magnatech (USA, 2023), Climax (USA, 2023) and Sumner (USA, 2025).

The vision and philosophy of the **S.F.E. Group** is to offer globally a comprehensive innovative and cost-effective range of specialized fabrication, welding and machining equipment and derived rental solutions, for a wide range of applications within all critical industries, while optimizing performance, efficiency and safety.

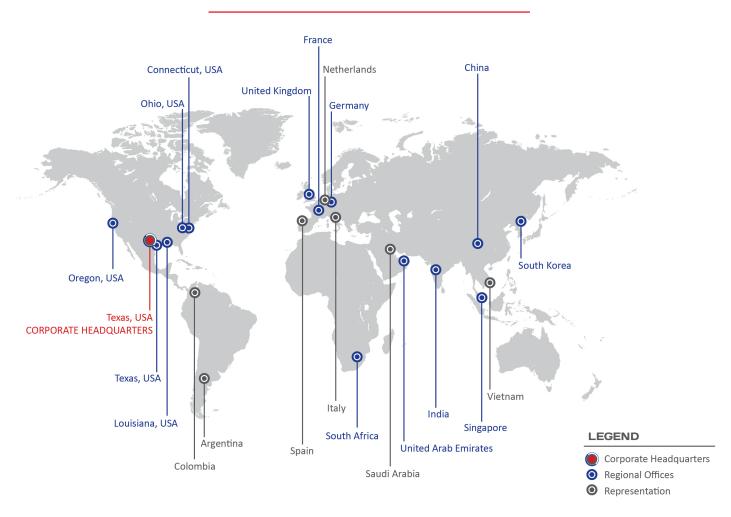
Leveraging over 200 years of combined experience in engineering, manufacturing, and field applications, the **S.F.E. Group** is committed to driving innovation. Through continuous product development and strategic acquisitions, the **S.F.E. Group** is actively growing its portfolio and expanding its global presence to meet the demands of industries around the world. Currently, the **S.F.E. Group** consists of 12 complimentary brands, each supporting the others in delivering cutting-edge solutions.

With offices and warehousing on 5 continents, 400+ employees and more than 500 partnerships and distributors worldwide, **S.F.E. Group** prides itself on consistently offering the highest standards of both product quality and service locally to all its customers.

S.F.E. Group looks forward to welcoming you into its global network as a partner, distributor or end user customer and remains at your disposal at any time.

Contact International: sales-int@sfe-brands.com

S.F.E. GROUP GLOBAL PRESENCE







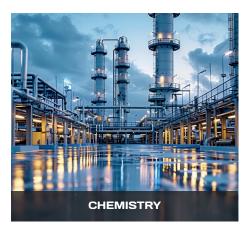
The S.F.E. Group's brand **TAG Pipe Equipment Specialists LTD** (in short: **TAG PIPE**) has its roots in the 1980's in the United Kingdom with the manufacturing and supplying of pipework fabrication tools and machinery. Over the years TAG PIPE became internationally one of the foremost leaders in its field, and today S.F.E. Group's unrivalled **TAG PIPE** range of cold cutting and bevelling machines is established and recognized as a world class leading brand.

Backed by more than 40 years of development, **TAG PIPE** not only offers the highest quality heavy duty machines utilizing the latest technology, but also stands for an emphasis on continuous R&D and tailor made solutions. As an OEM, S.F.E. Group prides itself being renowned for its innovations, ground-breaking developments and patented designs within the **TAG PIPE** range. With its engineering capabilities, customer-oriented focus and flexibility, the **TAG PIPE** brand provides the possibility to design out-of-the-box machining applications and solutions to fulfil customers' projects' specific needs in particular, and to cater for an ever-evolving industry in general.

The **TAG PIPE** brand portfolio consists of a complete range of portable pipe bevel machines (PREP machines covering 1 - 24"), the **TAG PIPE** cutting and bevelling splitframe clamshell machines (1 - 120"), as well as the stationary, yet moveable E-Z FAB machines (2 - 16") for pipe cutting and bevelling, the E-Z pipe saws and finally the PMM plate bevel machines.

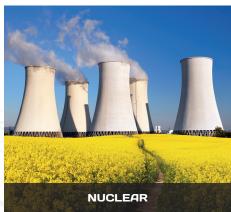
TAG PIPE machines are always nearby available within the S.F.E. Group global network and can be consulted on the dedicated website: **www.TAG-PIPE.com**.

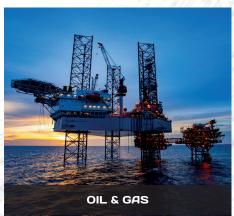
INDUSTRIES SERVED

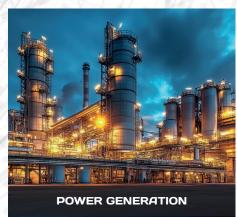












OUR BRANDS













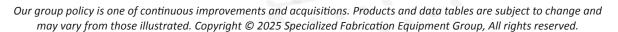














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1 - PREFACE

This manual provides the essential information and step-by-step guidance to the principle, configuration, installation and usage of the AXXAIR SAS – S.F.E. Group's TAG PREP machine models (in short: S.F.E. Group, TAG PREP or PREP).

The TAG PREP models are a high-tech portable inside diameter locking cold pipe bevelling machine. The basic functions of the PREP models are the facing, external bevelling, internal bevelling and counterboring of pipes within the selected model's working range (inside diameter). The PREP models can be used on any type of steel and exotic alloys.

The PREP models are available with the following motorizations: pneumatic, hydraulic and servo electric motor. The PREP models configuration are flexible due to its modular character: components (e.g. toolbox, striker block, etc.) and motors can be (within their limitations) exchanged, upgraded and replaced. The PREP models accept a wide range of accessories and bevelling tooling to increase theirs performance and expand theirs machining capacities.

Please read the instruction manual carefully before using the equipment.

NOTE

In the event of queries on installation, commissioning, operation or special conditions at the operation's site, or on usage, please contact your nearest S.F.E. Group authorised partner or our France International Head Office - customer service department: +33 4 75 57 50 79. You can also email us: sales-int@sfe-brands.com.

DISCLAIMER

AXXAIR SAS – S.F.E. Group's liability related to the operation of the PREP models are restricted solely to the function of the equipments. No other form of liability, regardless of type, shall be accepted. This exclusion of liability shall be deemed accepted by the user on commissioning of the equipment. S.F.E. Group is unable to monitor whether or not the instructions in this manual or the conditions and methods are observed during installation, operation, usage and maintenance of the PREP. An incorrectly performed installation can result in material damage and injure persons as a result. For this reason, S.F.E. Group does not accept any responsibility or liability of losses, damages or costs arising from incorrect installation, improper operation or incorrect usage and maintenance or any actions connected to this in any way possible.

2 - SAFETY INSTRUCTIONS

WARNING - S.F.E. Group takes great pride in manufacturing safe, quality products with user safety as key priority. S.F.E. Group recommends that all users comply with the following safety rules and instructions when operation the PREP models.

For your safety and the safety of others, read and understand these safety recommendations before installing and operating the PREP models. Keep this manual at all time clean and stored safely, accessible for any operator's reference at any time.

The S.F.E. Group TAG PREP is a high-tech portable inside diameter locking cold pipe bevelling machine. The basic functions of the PREP are the facing, external bevelling, internal bevelling and counterboring of pipes within the selected model's working range (inside diameter).

The TAG PREP can be used on any type of steel and exotic alloys. The PREP can be used on site or in a workshop environment. At all time it is the operator's responsibility to be aware of and adhere to the local applicable rules and legislation related to the operation of the equipment.

Wrong use or abuse of the PREP can lead to lethal accident and/or material damage (not limited to the equipment itself) and the environment.

The PREP should be operated at all time by a qualified operator, who has received adequate training on the equipment. Throughout the operation the operator must be familiar with:

- The controls of the equipment.
- The operation of the equipment.
- General and local safety regulations.
- The technical, physical and practical limitations of the equipment.

You'll find below the various significations and explanations on the symbolic used in this manual.

In this manual, warning messages and symbols are used to alert you about the danger of injuries or material damage during the use of machinery. It is essential to read carefully and to keep in mind these warnings in order to work safely.



DIRECT DANGER - Non observance could result in death or critical injury. Observe and carefully apply usage recommendations.

POSSIBLE DANGER - Non observance could result in serious injury. Observe and carefully apply usage recommendations.



3 - GENERAL SAFETY INSTRUCTIONS

- · Keep working space clean.
- Assess the working conditions properly prior to using the equipment.
- The operator should wear appropriate personal protective equipment when operating the equipment.
- When operating any heavy equipment, it is imperative that the operator is careful and observant of all moving components.
- Keep away from rotating parts during operation of the equipment.
- The operator should be physically and mentally capable of operating the equipment. In case of illness, tiredness or any medical or mental condition limiting the correct and safe operation of the equipment, the operator should be prohibited to conduct any work with the equipment.
- Make sure the grounding is connected properly and electrical cabinets are closed.
- Don't operate the electric switch, or button, or cables with wet hands, for fear of electrical shock. Protect the body from injury due to electric shock by avoiding touching any electrical parts when under power.
- Use only the foreseen earth connection. Do not ground to this equipment as it is possible to short-circuit the motor and/or control box when grounding to this equipment. Improper grounding poses a risk of electrical shock.
- Make sure power supply is disconnected when not operating or executing maintenance on the equipment.
- Do not make any modifications to existing or original electrical circuits, cabinets, safety stops and other related original components.
- Do not operate the equipment before closing all covers of the equipment. Great danger exists in naked terminals of power supply.
- Make sure all power cables are in good condition. In case of wear or damage, replace immediately.
- Don't pull the equipment by its cable(s) and don't disconnect the power cable from the equipment to cut off power. The cable(s) should be kept away from heat, power, oil, dirt and sharp-pointed tools or debris. Check the cable(s) before, during and after every operation.
- Protect yourself from toxic fumes that may be produced. Make sure there is appropriate ventilation and/or fume extraction in the working area.
- Wear impact resistant eye and ear protection while operation the equipment. If there is a lot of dust or fumes, wear dust-proof respirator or mask.
- · Make sure all of equipment's safety measures, covers and other devices are normal condition and checked.

4 - SPECIFIC INSTRUCTIONS

- Use solely original TAG components, accessories, tooling and (spare) parts.
- The equipment should only be used for its intended purpose.
- Considering the working environment of operation, don't get the equipment unnecessarily wet and don't use the equipment in overly humid conditions. Ensure the machine has the best possible conditions for operation.
- Do not remove or modify any component or part from the original PREP.
- Maintain the equipment regularly. In order to maintain the performance of the machine, keep it clean at all times and add oil lubricant and replace (spare) parts as per periodic recommendations.
- Prior to conducting any maintenance or change of accessories, (spare) parts or tooling, ensure that the power plug or air supply has been disconnected. The machine should not be 'powered' or in 'running mode'.
- When the power supply is connected, consider the machine in 'running mode'. Don't put hands on or near the switch.
- Before using the PREP make sure to inspect the machine on its completeness of all components, proper installation and general condition. In case of any sign of damage, wear or tear replace the affected components or parts prior to using the machine.
- Store and transport the equipment in the designated boxes in order to protect it from damage or deterioration due to environmental conditions.
- The PREP machines shall only be serviced and repaired by S.F.E. Group or an S.F.E. Group authorised partner.
- Follow carefully the instructions and technical specification related to the motorization of the PREP (voltage input, air pressure, quality of compressed air supply et cetera).
- Check the handle and safety pedal regularly (applied only to pneumatic motorized machines).

5 - MACHINE WORKING PRINCIPLE

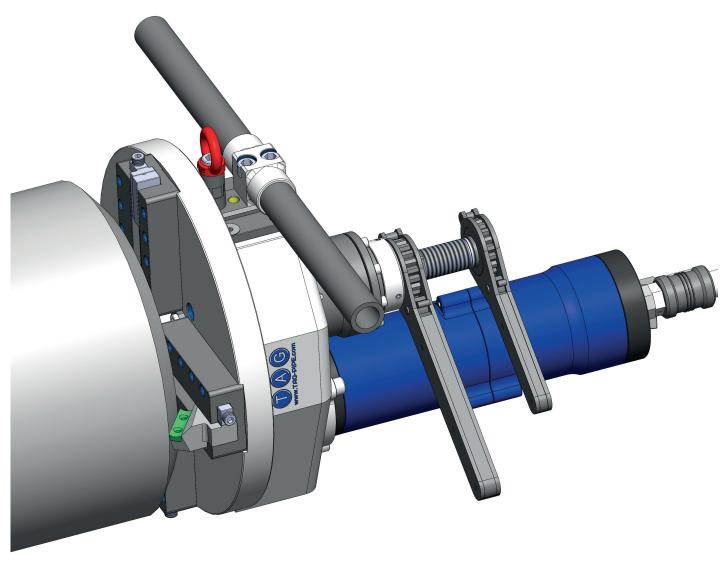
The TAG Pipe PREP is a high-tech portable inside diameter locking cold pipe bevelling machine. The basic functions of the PREP are the cutting, facing, external bevelling, internal bevelling and counterboring of pipes within the selected model's working range (inside diameter). The PREP can be used on any type of steel and exotic alloys. The PREP can be used on site or in a workshop environment.

The PREP models are available with the following motorizations: pneumatic, hydraulic and servo electric motor. The PREP configuration is flexible due to its modular character: motors can be (within their limitations) exchanged, upgraded and replaced. The PREP models accept a wide range of accessories and cutting and bevelling tooling to increase theirs performances and expand theirs machining capacities.

It works while inserted and locked into the ID of the pipe.

The bevel is obtained by bevelling tools of various shape and materials, depending by the nature of the material to be bevelled.

TAG Pipe's PREP's HSS Co (high speed steel with cobalt) range of tooling includes facing, bevel, double-bevel, compound bevel and counter bore tools. TAG tooling is available in a range of different lengths and sizes in order to match precisely the required application. TAG Pipe also offers custom designed tooling, special tool steel, coatings, and inserts for applications not covered by the standard range of tooling.







The TAG Pipe PREP models are modular in the sense that any of the following motor types can be mounted. This increases the overall user friendliness and flexibility. The motors can be installed and / or exchanged rapidly on the same motor mounting.

The TAG PREP 16 can be equipped with the following motor types:

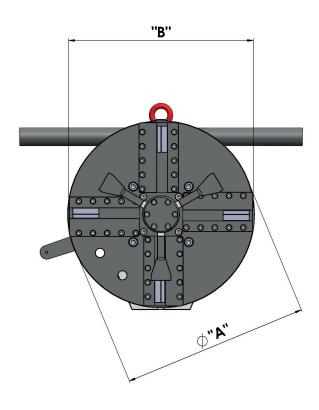


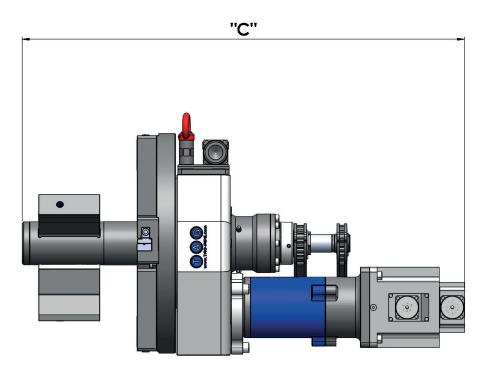




6 - MACHINE TECHNICAL DATA

The TAG PREP 16 dimensional specifications.





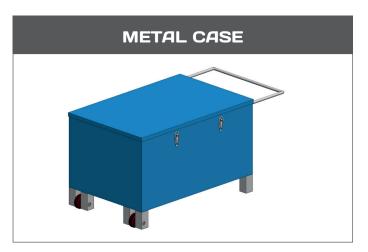
DIM	PNEUMATIC	SERVO ELECTRIC	HYDRAULIC
ØA	323 mm	323 mm	323 mm
В	407 mm	407 mm	407 mm
С	750 mm	630 mm	530 mm

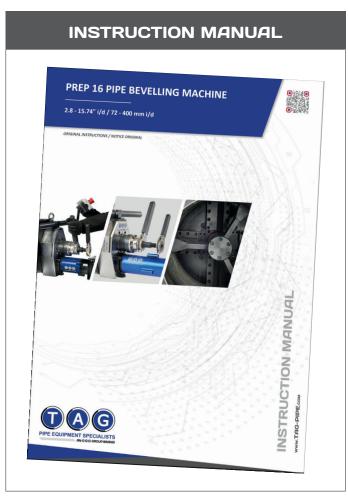
PREP 16 TECHNICAL FEATURES

DESCRIPTION	MEASUREMENT	PNEUMATIC	SERVO ELECTRIC	HYDRAULIC
Part Number	n/a	TP16P	TP16SE110 / TP16SE220	TP16H
Locking tube range	mm / inch (i/d)	72 - 400 mm / 2.8 - 15.74"	72 - 400 mm / 2.8 - 15.74"	72 - 400 mm / 2.8 - 15.74"
Working range	mm / inch (o/d)	72 - 406 3 - 16"	72 - 406 3 - 16"	72 - 406 3 - 16"
ldle speed	rpm	5 - 18	1 - 18	1 - 26
Length of axial feed	mm / inch	50 / 2	50 / 2	50 / 2
Max operating temperature	°C	55	60	60
Max acoustic radiation	dB	75	45	55
Pneumatic Motor Power	hp	3.5	n/a	5.4
Air Consuming Flux	cfm / I/min.	90 / 2500	n/a	n/a
Air working pressure	psi / bar	90 / 6.5	n/a	n/a
Air Hose Connection	inches	3/4"	n/a	n/a
Servo Electric Motor Power	kw	n/a	1.5	n/a
Voltage	volt	n/a	110 or 220	Refer to Hydraulic Power Pack
Frequency	Hz	n/a	50 / 60	Refer to Hydraulic Power Pack
Remote Control	Yes / No	No	Yes	Yes
Forward / Reverse	Yes / No	No	Yes	Yes
Unit weight	kg / lbs	43 / 95	44 / 97	41 / 90
Packing dimensions L x W x H	mm	860 x 570 x 530	860 x 570 x 530	860 x 570 x 530
Packing weight	kg / lbs	128 / 282	140 / 305	125 / 275

7 - MACHINE STANDARD EQUIPMENT



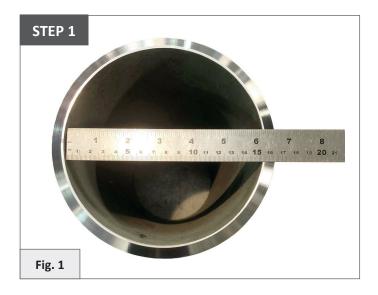


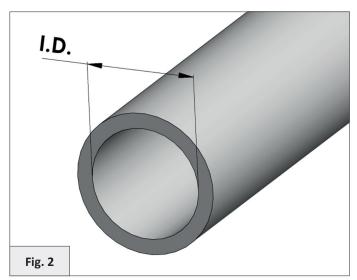


8 - MACHINE SETUP AND OPERATION

8.1 - PREP LOCKING JAWS

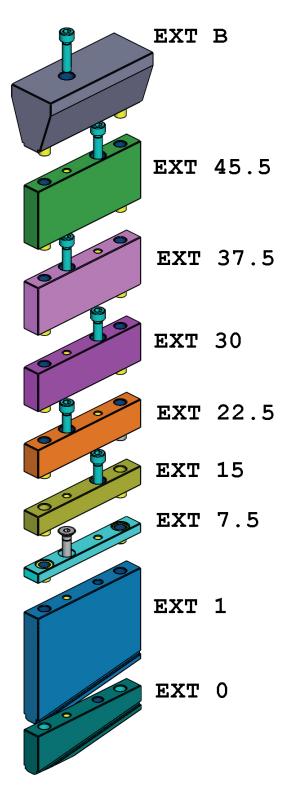
Prior to mounting the PREP it is important to measure the inside diameter (in short: I.D.) of the workpiece.

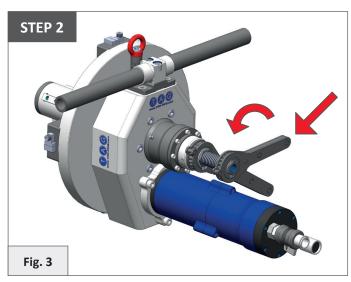


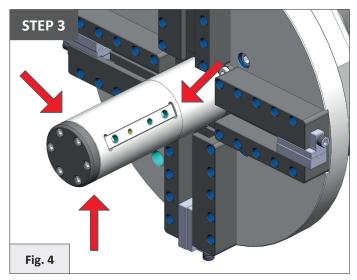


Find ID. select the combination of Jaws to be used in the complete kit supplied with the machine using the following table.

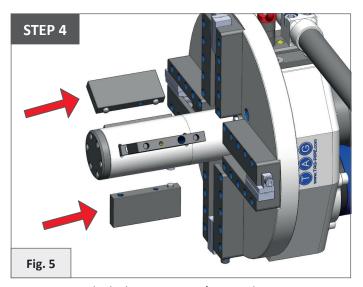
MIN - MAX	MIN - MAX	JAW 1	JAW 2	JAW 3	JAW 4
72 - 82	2.83 - 3.23	EXT 0			
80 - 98	3.14 - 3.85	EXT 0	EXT 7.5		
96 - 112	3.78 - 4.41	EXT 0	EXT 15		
110 - 127	4.33 - 5.00	EXT 0	EXT 22.5		
125 - 142	4.92 - 5.59	EXT 0	EXT 30		
140 - 157	5.51 - 6.18	EXT 0	EXT 37.5		
156 - 173	6.14 - 6.81	EXT 0			EXT B
171 - 187	6.73 - 7.36	EXT 0	EXT 7.5		EXT B
186 - 202	7.32 - 7.95	EXT 0	EXT 15		EXT B
201 - 217	7.91 - 8.54	EXT 0	EXT 22.5		EXT B
216 - 232	8.50 - 9.13	EXT 0	EXT 30		EXT B
231 - 248	9.09 - 9.76	EXT 0	EXT 37.5		EXT B
247 - 263	9.72 - 10.35	EXT 0		EXT 45.5	EXT B
262 - 277	10.31 - 10.90	EXT 1			EXT B
276 - 292	10.86 - 11.49	EXT 1	EXT 7.5		EXT B
291 - 308	11.45 - 12.12	EXT 1	EXT 15		EXT B
307 - 323	12.08 - 12.71	EXT 1	EXT 22.5		EXT B
322 - 338	12.67 - 13.30	EXT 1	EXT 30		EXT B
337 - 353	13.26 - 13.89	EXT 1	EXT 37.5		EXT B
352 - 368	13.85 - 14.48	EXT 1		EXT 45.5	EXT B
367 - 384	14.44 - 15.11	EXT 1	EXT 7.5	EXT 45.5	EXT B
383 - 400	15.07 - 15.74	EXT 1	EXT 15	EXT 45.5	EXT B



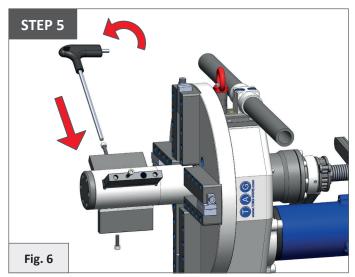




Using the key on the machine and turning it counterclockwise, fully retract all 3 locking blocks. (See figures).

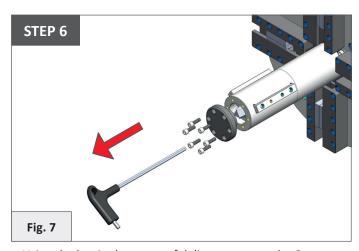


Insert the locking segments/jaws in their seats.

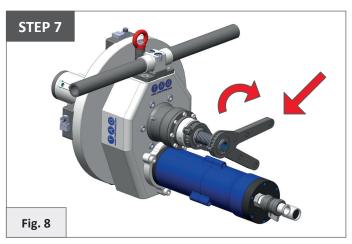


Use the appropriate tool to fix the locking segments.

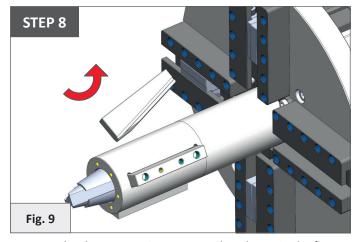
Be very careful not to unscrew too much otherwise the expansion shaft could release from the rear thread.



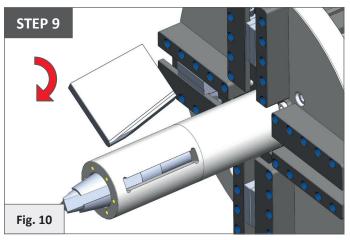
Using the key in the scope of delivery, remove the 6 screws and the cover as shown.



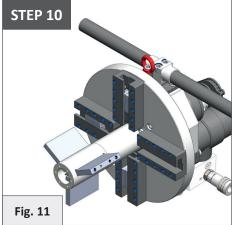
Using the key on the machine, turn clockwise and advance the jaw expansion shaft until the jaws can be removed.

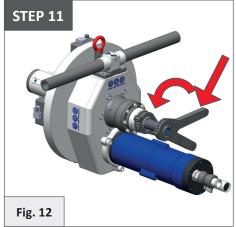


Remove the three extensions mounted as shown in the figure.

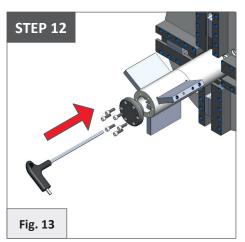


Insert the three extensions making like the previous in opposite movement.

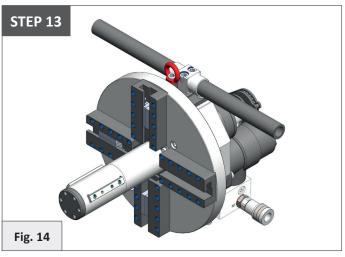


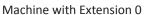


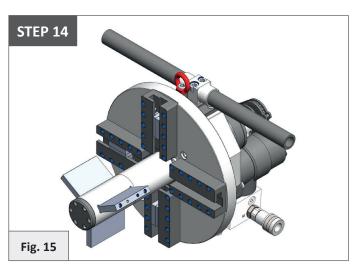
Once all 3 extensions have been inserted, use the key on the machine and move the expansion shaft back to the limit (hold the jaws during operation).



Reassemble the previously dismantled flange and screws by performing the opposite operations.

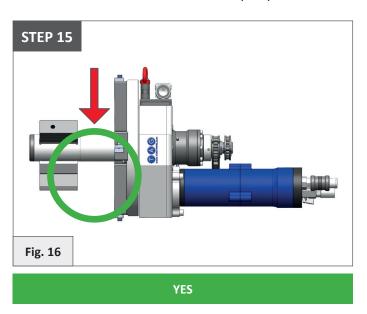


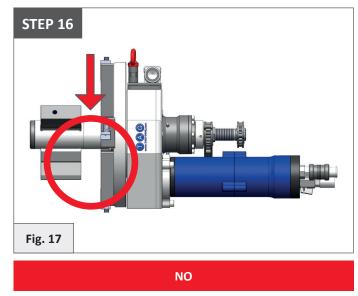




Machine with Extension 1

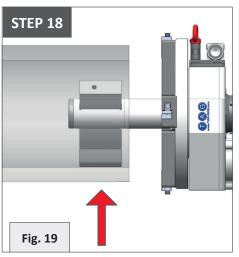
Once you have assembled the correct extensions for the diameter to be machined, make sure to position the machine with the body fully backward in order to take advantage of the entire Feed stroke.







If the body is not in the fully retracted position, act on the key on the machine (see figure) by turning it anticlockwise.



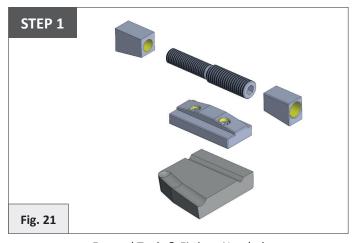
Insert the machine inside the tube (15 - 20mm). Make sure that the jaws are inside the tube.



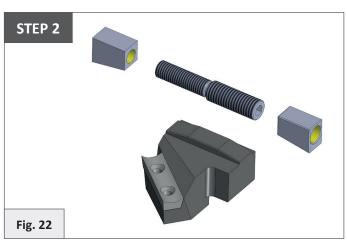
Using the lever indicated in the images, lock the machine clockwise.

8.2 - TOOL SETUP

TAG offers 2 types of tools:

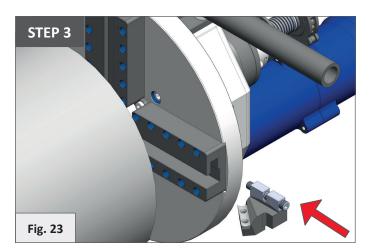




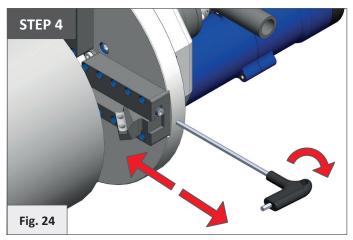


Insert Tools & Fittings Needed

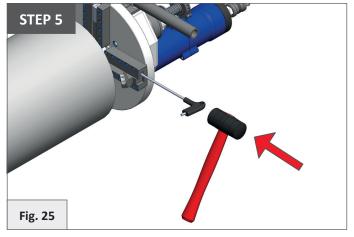
Form Tools and Insert tool Holders require different fittings as per first pictures Ensure you have the correct fittings.



Insert the tool with its parts as in the photo.

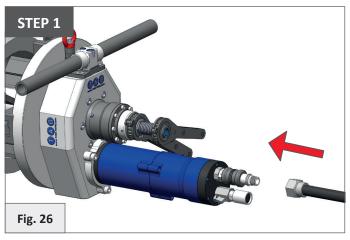


Position Tool in desired position and lock unsing 6mm allan key provided turning clockwise.

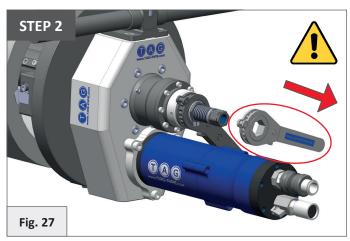


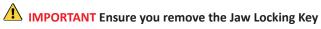
To unlock tool use 6mm allan key provided turn anti clockwise ½ a turn then tap end of allan key with rubber mallet this will release Tool and then pull back out.

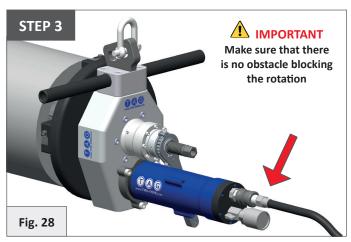
IMPORTANT Make sure that there is no obstacle blocking the rotation



Connect the air hose to the machine pneumatic motor

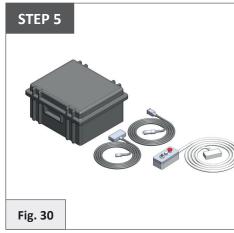






Start the machine by acting on the air valve





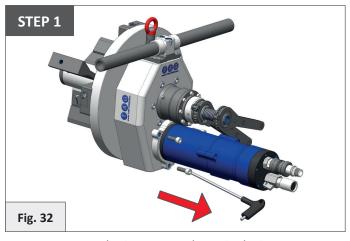
See the instructions in the single servo control kit



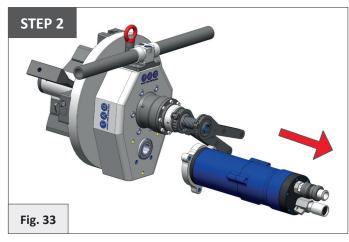
See instruction in the Hydraulic motor kit

From Pneumatic Drive Kit to Servo Electric Drive Kit

Before replacing the transmission kits, make sure that you have eliminated any connections that may accidentally activate the machine



Remove the 3 screws as shown in the image.



Remove the pneumatic transmission kit.

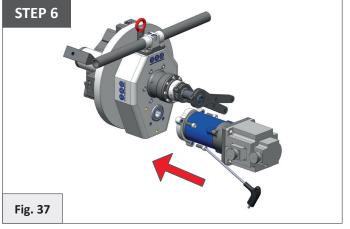
STEP 5



Remove the 3 screws that join the flange to the motor and remove the same.

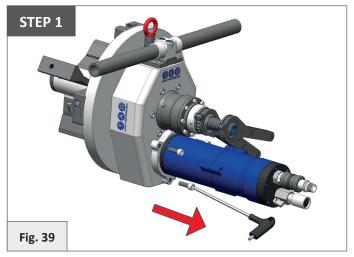


The previously dismantled flange must now be assembled on to the electric transmission kit





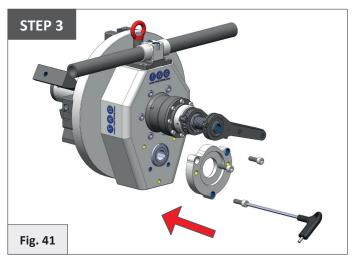
Insert and screwing the 3 screws previously disassemble and assemble the transmission and servo electric kit.



Remove the 3 screws as indicated in the image.



Remove the pneumatic transmission kit.



Assemble the flange using the 3 screws you removed previously.





Insert the hydraulic transmission kit and start the 2 screws on the flange previously assembled.

Continued safe operation of the equipment depends on regular maintenance and testing of its operating and protective controls. The equipment should only be inspected, tested and maintained by qualified trained personnel. Should any test indicate that the equipment being tested or observed is not in good operating condition, it should be repaired immediately. Record and maintain records of repairs or changes so that a complete record will be available for review at any time.

It is advisable to regularly check the machine for any deficiencies; in case of non-conformities, do not use the equipment and initiate repair activities. Any repair should be conducted S.F.E. Group or an S.F.E. Group authorised partner. All spare parts used during repair activities should be genuine TAG PREP original spare parts. The warranty on the equipment voids in case any form of repair is conducted by any unauthorised individual or service provider and/or in case non-genuine spare parts are used during any form of repair activity.

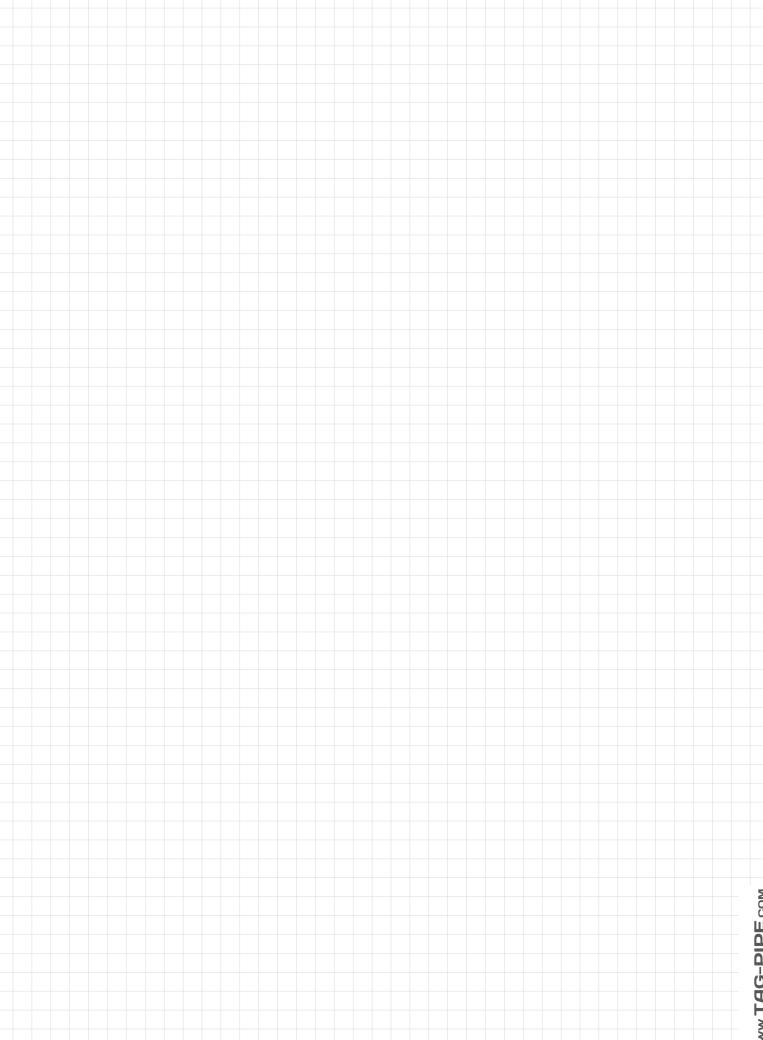
PERIODIC MAINTENANCE

- Prior to conducting any form of maintenance, make sure the equipment is not powered.
- When not using the equipment, keep the equipment safe and clean in the storage boxes.
- Do not store the equipment in humid storage area.
- Keep the equipment clean at all times in order to allow for optimal working conditions and performance.
- · After use, the equipment should be thoroughly cleaned by brush and anti-rust spray or grease should be applied.
- Do not clean the equipment by using compressed air.
- Make sure no metal particles or swarf is remaining on any parts of the equipment.
- Before and after usage check all components, especially the power cords, and connecting hoses for pneumatic and hydraulic motors.
- Check the tension and accuracy of the toolboxes. The high precision feed and tolerance (0.1 mm feed per revolution) is of critical performance of the equipment.
- It is advised to conduct an annual inspection and formal maintenance check-up by S.F.E. Group or an S.F.E. Group authorised partner.

10 - DELCARATION OF CONFORMITY











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