

SEGATRICE A NASTRO PER METALLI FERROSI
BAND SAW FOR FERROUS METALS
BANDSAEGEMASCHINE FÜR EISENMETALLE
SCIE A RUBAN POUR METAUX FERREUX
SIERRA DE CINTA PARA METALES FERROSOS
ЛЕНТОЧНЫЙ РАСПИЛОВОЧНЫЙ СТАНОК ДЛЯ МЕТАЛЛОВ

MANUALE DI ISTRUZIONI PER L'USO - INSTRUCTION MANUAL FOR OPERATION
BETRIEBSANLEITUNG - MANUEL D'INSTRUCTIONS POUR L'EMPLOI
MANUAL DE INSTRUCCIONES DE USO
РУКОВОДСТВО ПО ЭКСПЛУАТАЦИИ И ТЕХОБСЛУЖИВАНИЮ

COSTRUTTORE:
MANUFACTURER:
ERBAUER:
CONSTRUCTEUR:
CONSTRUCTOR:
ИЗГОТОВИТЕЛЬ:

MACC s.r.l. SCHIO (VI) - ITALY

MODELLO:
MODEL:
MODELL:
MODELE:
MODELO:
МОДЕЛЬ:

SPECIAL 411 CSO

MATRICOLA:
SERIAL NUMBER:
KENNNUMMER:
MATRICULE:
MATRICULA:
СЕРИЙНЫЙ НОМЕР:

ANNO DI COSTRUZIONE:
YEAR OF CONSTRUCTION:
BAUJAHR:
ANNEE DE CONSTRUCTION:
AÑO DE CONSTRUCCION:
ГОД ИЗГОТОВЛЕНИЯ:

2016





DICHIARAZIONE DI CONFORMITA' 'CE'
CERTIFICATE OF CONFORMITY 'EEC'
KONFORMITÄTSBESCHEINIGUNG 'EWG'
DECLARATION DE CONFORMITE 'CE'
DECLARACION DE CONFORMIDAD 'CE'
ДЕКЛАРАЦИЯ О СООТВЕТСТВИИ 'CE'

MACC Costruzioni Meccaniche s.r.l. - Via Lago di Albano, 10 - 36015 Schio (VI) Italy
Tel.: 0445/575005 Fax: 0445/575006 Web site: www.macc.it E-mail: info@macc.it

- Dichiaro, sotto la propria responsabilità, che la macchina nuova descritta in appresso:
- Declares, by its own undertaking, that the new machine described below:
- Erklärt auf eigene Verantwortung, daß die nachstehend beschriebene neue Maschine:
- Déclare sous sa propre responsabilité, que la machine neuve décrite de suite:
- Declara, bajo la propia responsabilidad, que la nueva máquina descrita a continuación:
- Заявляет под личную ответственность, что описанная новая машина под названием:

SÉGATRICE A NASTRO PER METALLI
BAND SAW MACHINE FOR METALS
BANDSAEGEMASCHINE FÜR EISENMETALLE
SCIE A RUBAN POUR METAUX
SIERRA DE CINTA PARA METALES
ЛЕНТОЧНЫЙ РАСПИЛОВОЧНЫЙ СТАНОК ДЛЯ МЕТАЛЛОВ

TIPO - TYPE - TYP - TYPE – TIPO - ТИП

SPECIAL 411 CSO

MATRICOLA - SERIAL NUMBER - KENNNUMMER - MATRICULE – MATRICULA - СЕРИЙНЫЙ НОМЕР

ANNO DI COSTRUZIONE – YEAR OF CONSTRUCTION - BAUJAHR – ANNEE DE CONSTRUCTION
AÑO DE CONSTRUCCION - ГОД ИЗГОТОВЛЕНИЯ

2016

- E' CONFORME ALLA DIRETTIVA MACCHINE 2006/42/CE, ALLA DIRETTIVA COMPATIBILITA' ELETTROMAGNETICA 2004/108/CE ED ALLA DIRETTIVA BASSA TENSIONE 2006/95/CE.
- IS IN COMPLIANCE WITH THE 2006/42/EEC MACHINERY DIRECTIVE, 2004/108/EEC DIRECTIVE ON ELECTROMAGNETIC COMPATIBILITY, 2006/95/EEC LOW VOLTAGE DIRECTIVE.
- DEN NORMEN BEZÜGLICH DER MASCHINEN-RICHTLINIE 2006/42/EWG, 2004/108/EWG RICHTLINIE ZUR ELEKTROMAGNETISCHEN KOMPATIBILITÄT, 2006/95/EWG RICHTLINIE FÜR NIEDERSpannung ENTSPRICHT.
- EST CONFORME A LA DIRECTIVE MACHINES 2006/42/CEE, 2004/108/CEE DIRECTIVE SUR LA COMPATIBILITÉ ÉLECTROMAGNÉTIQUE, 2006/95/CEE DIRECTIVE BASSE TENSION.
- HA SIDO FABRICADA CONFORME A LA DIRECTIVA MÁQUINAS 2006/42/CEE, 2004/108/CEE DIRECTIVA COMPATIBILIDAD ELECTROMAGNÉTICA, 2006/95/CEE DIRECTIVA BAJA TENSION.
- ОТВЕЧАЕТ ТРЕБОВАНИЯМ ДИРЕКТИВЫ ПО МАШИНАМ 2006/42/СЕ, ДИРЕКТИВЫ ОБ ЭЛЕКТРОМАГНИТНОЙ СОВМЕСТИМОСТИ 2004/108/СЕ И ДИРЕКТИВЫ О НИЗКОМ НАПРЯЖЕНИИ 2006/95/СЕ.

Nome della persona autorizzata a costituire il 'Fascicolo Tecnico' - Name of the person authorized to represent the 'Technical File' - Name der Person, auf die "Technical File" vertreten - Nom de la personne autorisée à représenter le 'dossier technique' Nombre de la persona autorizada para representar a la "Ficha Técnica" - Фамилия, имя лица, уполномоченного составить техническую документацию

Franco Luciano

MACC Costruzioni Meccaniche s.r.l. - Via Lago di Albano, 10 - 36015 Schio (VI) Italy Tel.: 0445/575005 Fax: 0445/575006

Nome del Rappresentante Legale - Name of the Legal Representative - Name des Gesetzlichen Vertreters
Nom du Représentant Légal - Apellido del Representante Legal - Фамилия, имя законного представителя:

Zanella Gianfranco

MACC Costruzioni Meccaniche s.r.l. - Via Lago di Albano, 10 - 36015 Schio (VI) Italy Tel.: 0445/575005 Fax: 0445/575006

Firma - Signature - Unterschrift - Signature - Firma - Подпись:

Schio, 2016



E' SEVERAMENTE VIETATO UTILIZZARE LA MACCHINA SENZA LIQUIDO DI TAGLIO.

IT IS STRICTLY FORBIDDEN TO USE THE MACHINE WITHOUT CUTTING FLUID.

ES IST STRENG VERBOTEN, DIE MASCHINE OHNE SCHNEIDFLÜSSIGKEIT IN BETRIEB ZU NEHMEN.

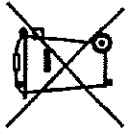
IL EST SEVEREMENT INTERDIT D'UTILISER LA MACHINE SANS LIQUIDE DE COUPE.

SE PROHÍBE TERMINANTEMENTE UTILIZAR LA MÁQUINA SIN LÍQUIDO DE CORTE.

É SEVERAMENTE PROIBIDO UTILIZAR A MÁQUINA SEM LÍQUIDO DE CORTE.

Категорически запрещена эксплуатация машины без смазочно-охлаждающей жидкости

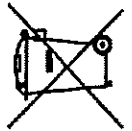
English



Disposal of Old Electrical & Electronic Equipment (Applicable in the European Union and other European countries with separate collection systems)

This symbol on the product or on its packaging indicates that this product shall not be treated as household waste. Instead, it shall be handed over to the applicable collection point for the recycling of electrical and electronic equipment. By ensuring this product is disposed of correctly, you will help prevent potential negative consequences for the environment and human health, which could otherwise be caused by inappropriate waste handling of this product. The recycling of materials will help to conserve natural resources. For more detailed information about recycling of this product, please contact your local city office, your household waste disposal service or the shop where you purchased the product.

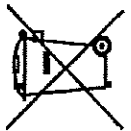
Français



Traitement des appareils électriques et électroniques en fin de vie (Applicable dans les pays de l'Union Européenne et aux autres pays européens disposant de systèmes de collecte sélective)

Ce symbole, apposé sur le produit ou sur son emballage, indique que ce produit ne doit pas être traité avec les déchets ménagers. Il doit être remis à un point de collecte approprié pour le recyclage des équipements électriques et électroniques. En s'assurant que ce produit est bien mis au rebut de manière appropriée, vous contribuerez à prévenir les conséquences négatives potentielles pour l'environnement et la santé humaine, qui pourraient être causées par une mauvaise gestion des déchets de ce produit. Le recyclage des matériaux aidera à conserver les ressources naturelles. Pour toute information supplémentaire au sujet du recyclage de ce produit, vous pouvez contacter votre municipalité, votre déchèterie ou le magasin où vous avez acheté le produit.

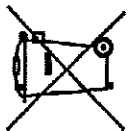
Deutsch



Entsorgung von Gebrauchten elektrischen und elektronischen Geräten (Anzuwenden in den Ländern der Europäischen Union und anderen europäischen Ländern mit einem separaten Sammelssystem für diese Geräte)

Das Symbol auf dem Produkt oder seiner Verpackung weist darauf hin, dass dieses Produkt nicht als normaler Haushaltsabfall zu behandeln ist, sondern an einer Annehmestelle für das Recycling von elektrischen und elektronischen Geräten abgegeben werden muss. Durch Ihren Beitrag zum korrekten Entsorgen dieses Produktes schützen Sie die Umwelt und die Gesundheit Ihrer Mitmenschen. Umwelt und Gesundheit werden durch falsches Entsorgen gefährdet. Materialrecycling hilft den Verbrauch von Rohstoffen zu verringern. Weitere Informationen über das Recycling dieses Produktes erhalten Sie von Ihren Gemeinden, den kommunalen Entsorgungsunternehmen oder dem Geschäft, in dem Sie das Produkt gekauft haben.

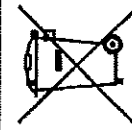
Español



Traitamiento de los equipos eléctricos y electrónicos al final de su vida útil (Aplicable en la Unión Europea y en países europeos con sistemas de recogida selectiva de residuos)

Este símbolo en su equipo o su embalaje indica que el presente producto no puede ser tratado como residuos domésticos normales, sino que deben entregarse en el correspondiente punto de recogida de equipos eléctricos y electrónicos. Asegurándose de que este producto es desechado correctamente, Ud. está ayudando a prevenir las consecuencias negativas para el medio ambiente y la salud humana que pueden derivarse de la incorrecta manipulación de este producto. El reciclaje de materiales ayuda a conservar las reservas naturales. Para recibir información detallada sobre el reciclaje de este producto, por favor, contacte con el ayuntamiento, su punto de recogida más cercano o el distribuidor donde adquirió el producto.

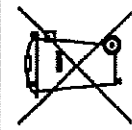
Nederlands



Verwijdering van Oude Elektrische en Elektronische Apparaten (Toepasbaar in de Europese Unie en andere Europese landen met gescheiden opnamestelsels)

Het symbool op het product of op de verpakking wijst erop dat dit product niet als huishoudafval mag worden behandeld. Het moet echter naar een plaats worden gebracht waar elektrische en elektronische apparaten worden gerecycled. Als u ervoor zorgt dat dit product op de correcte manier wordt verwijderd, voorkomt u mogelijk negatieve gevolgen die zich zouden kunnen voordoen in geval van verkeerde afvalbehandeling. De recycling van materialen draagt bij tot het vrijmaken van natuurlijke bronnen. Voor meer details in verband met het recyclen van dit product, neemt u het best contact op met de gemeentelijke instanties, het bedrijf of de dienst belast met de verwijdering van huishoudafval of de winkel, waar u het product hebt gekocht.

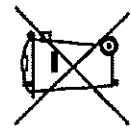
Svenska



Omhändertagandet av gamla elektriska och elektroniska produkter (Användbart i den Europeiska Unionen och andra Europeiska länder med separata insamlingsystem)

Symbolen på produkten eller emballaget anger att produkten inte får hanteras som hushållsavfall. Den skall i stället lämnas in på uppsamlingsplats för återvinning av el- och elektronikkomponenter. Genom att säkerställa att produkten hanteras på rätt sätt bidrar du till att förbygga eventuellt negativt miljö- och hälsoeffekter som kan uppstå om produkten hanteras som vanligt avfall. Återvinning av material hjälper till att bibehålla naturans resurser. För ytterligare upplysningar om återvinning bör du kontakta lokala myndigheter eller samlingsstället eller närliggande butik där du köpte varan.

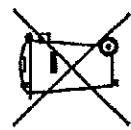
Italiano



Treatmento del dispositivo elettrico ed elettronico a fine vita (Applicabile in tutti i paesi dell'Unione Europea e in quelli con sistema di raccolta differenziata)

Questo simbolo sul prodotto o sulla confezione indica che il prodotto non deve essere considerato come un normale rifiuto domestico, ma deve invece essere consegnato ad un punto di raccolta appropriato per il riciclo di apparecchi elettrici ed elettronici. Assicurandosi che questo prodotto sia smaltito correttamente, voi contribuirete a prevenire potenziali conseguenze negative per l'ambiente e per la salute che potrebbero altrimenti essere causate dal suo smaltimento inadeguato. Il riciclaggio dei materiali aiuta a conservare le risorse naturali. Per informazioni più dettagliate circa il riciclaggio di questo prodotto, potete contattare l'ufficio comunale, il servizio locale di smaltimento rifiuti oppure il negozio dove l'avete acquistato.

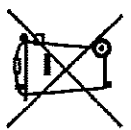
Polski



Recykling się Zużytego Sprzętu (Stosowane w krajach Unii Europejskiej i w pozostałych krajach europejskich mających własne systemy zbiorów)

Taki symbol na produkcie lub jego opakowaniu oznacza, że produkt nie może być traktowany jako odpad komunalny, lecz powinien go dostarczyć do odpowiedniego punktu zbiórki sprzętu elektrycznego i elektronicznego, w celu recyklingu. Poprawne upewnienie się, że dyspozycja dotycząca produktu jest poprawna, zapobiega do potencjalnym negatywnym wpływom na środowisko oraz zdrowiu ludzi, jakie mogłyby wystąpić w przypadku niewłaściwego postępowania. Recykling materiałów pomoże w ochronie naturalnych zasobów. W celu uzyskania bardziej szczegółowych informacji na temat recyklingu tego produktu, należy skontaktować się z naszymi lokalnymi biurami, ze sklepami, w których zakupiony został ten produkt.

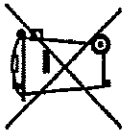
Norsk



Avhending av gamle elektriske og elektroniske apparater (gjelder i EU og andre europeiske land med separert innsamlingsystem)

Dette symbolet på produktet eller emballagen indikerer at dette produktet ikke må håndteres som husholdningsavfall. I stedet skal det leveres inn til spesielt innamlingspunkt for gjenvinning av det elektriske og elektroniske utstyret. Ved å sørge for at dette produktet avhendes på korrekt måte, vil du hjelpe til med å forhindre potensielle negative påvirkninger på miljøet og helse, som ellers kan være resultatet av feilaktig håndtering av dette produktet. Gjenvinning av disse materialene vil hjelpe til med å ta vare på våre naturressuser. For mer informasjon, og forvinnning av dette produktet, kan du kontakte lokale myndigheter.

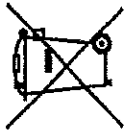
Magyarul



Felhasználókat váró elektromos és elektronikus készülékek hulladékait való elszállítására (Használatból az Európai Unió és egyéb európai országok elektromos hulladékgyűjtési rendszerében)

Ez a szimbólum a készülékek vagy a számítógépekhez azt jelzi, hogy a terméknek no longer használható. Kérjük, hogy az elektromos és elektronikus készülékek gyűjtésére kijelölt gyűjtőhelyen adják át. A készülékek való elszállítását a helyi önkormányzatok végzik. A készülékek elszállítását az önkormányzatok végzik. A készülékek elszállítását az önkormányzatok végzik. A készülékek elszállítását az önkormányzatok végzik.

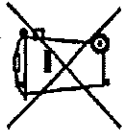
Česky



Nakládání s nepotřebným elektrickým a elektronickým zařízením (platné v Evropské unii a dalších evropských státech uplatňujících oddělený systém sběru)

Tento symbol umístěný na výrobku nebo jeho balení upozorňuje, že s výrobkem po ukončení jeho životnosti by neměla být nakládáno jako s běžným odpadem z domácnosti. Místo toho by měl být odeslán do odděleného místa, určeného k recyklaci elektrických výrobků a zařízení. Dodávatelé jsou povinni zajistit nepřetržitý přístup na živnostní předpisy a zprávy lidí, které naprosto může být odesláno nezávisle na výrobci. Pro získání dalších informací o recyklaci výrobků kontaktujte prodejce, místní úřady, místní firmu zabývající likvidací a sběr odpadu nebo prodejce, v případě výrobek zakoupili.

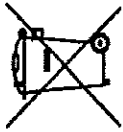
Slovensky



Likvidácia stárých elektrických a elektronických zariadení (platí v Európskej únii a ostatných európskych krajinách so zavedeným separovaným zberom)

Tento symbol na výrobku alebo obale znamená, že s výrobkom nemôže byť nakladané ako s domovým odpadom. Miesto toho by mal byť oddelený od ostatného domového odpadu na recyklačnú linku. Dodávateľ musí zabezpečiť prístup na živnostné predpisy a zprávy ľudí, ktoré naprosto môže byť odesláno nezávisle na výrobcovi. Pre získanie ďalších informácií o recyklácii výrobkov kontaktujte predajcu, miestny úrad, miestnu firmu zaoberajúcu odpaďou alebo predajcu, kde ste výrobok zakúpili.

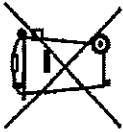
Türkçe



Eski Elektrikli ve Elektronik Ekipmanların Atılması (Avrupa Birliği'nde ve aynı toplama sistemlerinde sahibi diğer Avrupa ülkelerinde uygulanır)

Ürün veya ambalaj üzerinde bulunan bu sembol, bu ürünün bir ev atığı olarak muamele görmemesi gerektiğini gösterir. Bunun yerine, elektrikli ve elektronik ekipmanların geri dönüştürülmesi için mevzuat olan uygun toplama noktasına teslim edilmelidir. Bu ürünün doğru şekilde kullanılmasını sağlamak, bu ürünün yanlı kullanılmasını önlemek amacıyla, üretici, kullanıcı ve diğer kullanıcıların bilgilendirilmesini garanti eder. Bilgi edinmek için lütfen yerel mevzuatla ilgili olarak, üretici, kullanıcı ve diğer kullanıcıların bilgilendirilmesini garanti eder. Bilgi edinmek için lütfen yerel mevzuatla ilgili olarak, üretici, kullanıcı ve diğer kullanıcıların bilgilendirilmesini garanti eder.

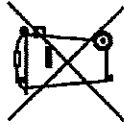
Slovensko



Oddaja stare električne in elektronske opreme (veljavna v evropski uniji in ostalih evropskih državah s sistemom zbiranja ločenih odpadkov)

Če so na izdelku ali na njegovih embalažah nahajajo ta simboli, pomeni, da z izdelkom na mesto, namenjeno enako kot z drugimi gospodinjstvenimi odpadki. Merilo ga oddate na ustrezno zbirno mesto za recikliranje električne in elektronske opreme. S pravilno oddajo tega izdelka boste pomagali preprečiti negativne posledice na okolje in zdravje ljudi, do katerih bi prišlo v primeru neustreznega ravnanja ob odstranitvi tega izdelka. Recikliranje materiala bo prispevalo k ohranjanju naravnih virov. Podrobnejše informacije o recikliranju tega izdelka lahko dobite pri lokalni mešani upravi, službi oddajanja gospodinjstvenih odpadkov ali v trgovini, kjer ste izdelka kupili. Odpadna električno in elektronsko opremo lahko oddate brezplačno tudi distributerju neposredno ob dobavi izdelka oz. elektronske opreme.

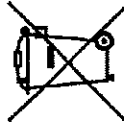
Русский



Утилизация электрического и электронного оборудования (директива применяется в странах Евросоюза и других европейских странах, где действует система раздельного сбора отходов)

Данный знак на устройстве или его упаковке обозначает, что данное устройство нельзя утилизировать вместе с прочими бытовыми отходами. Его следует сдать в соответствующий приемный пункт переработки электрического и электронного оборудования. Благодаря этому вы сможете избежать негативных последствий для окружающей среды и здоровья людей. Поэтому для предотвращения возможных последствий необходимо выполнить специальные требования по утилизации этого изделия. Подробную информацию о переработке этого изделия обращайтесь в местные органы государственного управления, службу сбора бытовых отходов или в магазин, где было приобретено изделие.

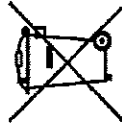
Suomi



Käytöstä poistetun sähkö- ja elektroniikkalaitteen hävitys (Euroopan Unioni ja muiden Euroopan maiden kansalliset järjestelmät)

Symboli, joka on merkitty Tuotteen tai sen pakkausten, osien, etä tällä tavalla ei saa hävittää tavallisen jätteen kanssa. Tuote on vietävä jätteenkäsittelylaitokseen, johon on suunniteltu sähkö- ja elektroniikkalaitteiden kierrätykseen. Tästä voit välttää ympäristön ja terveyden haitalliset vaikutukset. Tästä voit välttää ympäristön ja terveyden haitalliset vaikutukset. Tästä voit välttää ympäristön ja terveyden haitalliset vaikutukset. Tästä voit välttää ympäristön ja terveyden haitalliset vaikutukset.

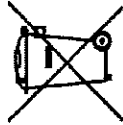
Dansk



Bortskaffelse af elektrisk og elektronisk udstyr (gældende i EU og andre europæiske lande med egne indsamlingssystemer)

Dette symbol findes på produktet eller på emballagen betyder det, at det pågældende produkt ikke må bortskaffes som almindeligt husholdningsaffald. Du skal i stedet aflevere det på et indsamlingssted, der er etableret og udformet udtryk til brug af elektrisk og elektronisk udstyr som f.eks. tv, køleskab, vaskemaskine, computer, mobiltelefon, etc. Dette vil undgå miljø- og sundhedsfarer. Derfor skal du aflevere det på et indsamlingssted, der er etableret og udformet udtryk til brug af elektrisk og elektronisk udstyr som f.eks. tv, køleskab, vaskemaskine, computer, mobiltelefon, etc. Dette vil undgå miljø- og sundhedsfarer.

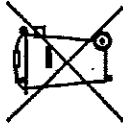
Português



Tratamiento de Equipamentos Eléctricos e Electrónicos no final da sua vida útil (Aplicável no União Europeia e em países Europeus com sistemas de recolha selectiva de resíduos)

Este símbolo, colocado no produto ou na sua embalagem, indica que esse não deve ser tratado como resíduo urbano indiferenciado. Deve ser colocado num ponto de recolha destinado a resíduos de equipamentos eléctricos e electrónicos. Asegurando-se que esse produto é convenientemente separado, irá prevenir problemas consequentes resultantes para o ambiente bem como para a saúde, que de outra forma poderiam ocorrer pelo mau manuseamento desses produtos. A reciclagem dos materiais constituintes para a construção de novos produtos é mais benéfica para o ambiente do que a deposição em aterro. Este símbolo deve encontrar-se em todos os produtos e embalagens de equipamentos eléctricos e electrónicos.

Ελληνικά



Αποκρίση Πολυέτη Ηλεκτρική & Ηλεκτρονική Εξοπλισμού(σύμφωνα στην Ευρωπαϊκή Ένωση και άλλες Ευρωπαϊκές χώρες με ξεχωριστά συστήματα περισυλλογής)

Το σύμβολο αυτό επάνω στο προϊόν ή στη συσκευασία του σημαίνει ότι το προϊόν δεν πρέπει να ταξινομηθεί μαζί με τα οικιακά απορρίμματα αλλά πρέπει να παραδοθεί σε ένα κεντρικό σημείο συλλογής ηλεκτρικού και ηλεκτρονικού υλικού προς επεξεργασία. Με το να βοηθήσετε στα επόμενα βήματα αυτής της διαδικασίας, θα βοηθήσετε στην πρόληψη πιθανών αρνητικών επιπτώσεων στο περιβάλλον και την υγεία των ανθρώπων. Γι' αυτό, πρέπει να αφαιρέσετε το προϊόν από τη συσκευασία και να το φέρите στα σημεία συλλογής που υπάρχουν στα καταστήματα ή στα κέντρα περισυλλογής. Η σωστή διαχείριση των υλικών αυτών είναι πολύ πιο ευνοϊκή για το περιβάλλον από την απλή απόρριψή τους με τα οικιακά απορρίμματα.

1. INTRODUCTION

This operation instruction manual conforms to the requirements of the 2006/42/EEC Machine Directives and subsequent amendments. In the light of this, special attention has been given to safety aspects and accident prevention in the workplace for each stage in the machine's "life". Information which could be of particular assistance to the operator has been highlighted.

The "Operating instructions" are an integral part of the machine and should be consulted before, during and after the start up of the machine and whenever else required. The content of these instructions should always be carefully observed.

The observance of the above is the only way to achieve the two fundamental aims of this manual:

- **Optimization of machine performance**
- **Prevent damage to the machine and injury to the operator**

The index of the chapters and the index of the drawings, diagrams and tables is contained in chapter 3 and can be used to help the location of specific information.

CAUTION : BEFORE INSTALLING THE MACHINE, READ THE OPERATING INSTRUCTIONS CAREFULLY

2. INFORMATION ABOUT MAINTENANCE ASSISTANCE

2.1 GUARANTEE

- MACC S.r.l. products are guaranteed against material and manufacturing defects for a period of 12 months from the date of delivery or, if the machine is installed by MACC employees, from the date of machine start up.
- The buyer is only entitled to the replacement of parts which are acknowledged as faulty: carriage and packing are at the buyer's expense. In the event of the above, the following information should be supplied:
 1. Date and number of purchasing document.
 2. Machine model.
 3. Serial number.
 4. Code of any relevant drawings.
- Requests for compensation for the inactivity of the machine will not be accepted.
- The guarantee does not cover uses which are not in line with these operating instructions which are an integral part of the machine. Nor is maintenance covered if the instructions supplied are not observed.
- The guarantee will not cover machines which have undergone unauthorized modifications.
- Modification or tampering with the safety devices is strictly forbidden.

3. INDEX

3.1 INDEX OF CHAPTERS

Chap. 1	Introduction
Chap. 2	Information about maintenance assistance
Chap. 3	Index of chapters, drawings, diagrams and tables
Chap. 4	Description of the machine Safety standards complied with during the design and construction of the machine Description of the machine and its components
Chap. 5	Main technical data
Chap. 6	Handling and transportation
Chap. 7	Installation
Chap. 8	Start up and operation Devices and their location Tools supplied Operation Special safety checks General safety rules Measures to prevent residual risks Safety guidance notice labels on the machine
Chap. 9	Maintenance and repairs General safety measures Routine checks and maintenance Description of routine maintenance
Chap. 10	Information regarding environmental noise
Chap. 11	Laying off and dismantling
Chap. 12	List of spare parts

3.2 INDEX OF DRAWINGS, DIAGRAMS AND TABLES

ENCL. TYPE	DESCRIPTION	ENCL No.	CHAP.
Table	Cutting capacity - Selection of blade -Cutting speeds	1	8.3
Drawings	Handling and transportation- Installation plan	2	6/7A/7B/8.1/8.3
Drawings	Blade guides – Tensioning – pulleys – bow support	3	7C/8.3/9.3
Drawings	Block vice	4	8.3/9.3
Drawings	Machine assembly	5	9.3
Drawings	Machine assembly - Control panel	6	7C/8.3
Diagram	Wiring diagram	7	

4. DESCRIPTION OF THE MACHINE

4.1 SAFETY STANDARDS COMPLIED WITH DURING THE DESIGN AND CONSTRUCTION OF THE MACHINE

The machine produced by us is in compliance with:

- **2006/42/EEC Machinery Directive** (ex 98/37/EEC, as amended by the 89/392/EEC, 91/368/EEC, 93/44/EEC and 93/68/EEC Directives).

The following Standards apply:

- EN ISO12100-1 2005 Safety of machinery. Basic concepts, general principles for design, basic methodology.
- EN ISO12100-2 2005 Safety of machinery. Basic concepts and general principles for design. Specifications and technical principles.
- EN 418 1994 Safety of machinery. Emergency stop devices, functional aspects - design principles.
- EN 983 1996 Safety requirements related to systems and components for hydraulic and pneumatic transmissions.
- EN 1037 1995 Isolation and energy dissipation. Prevention of unexpected start-up.
- EN 1088 1995 Interlocking devices associated with guards — Principles for design and selection.
- EN 60204-1 1998 Safety of machinery. Electrical equipment of machines. General requirements.
- EN 294 1992 Safety distances to prevent danger zones being reached by the upper limbs.

- **89/336/EEC Directive on electromagnetic compatibility** as amended by the 92/31/EEC, 96/68/EEC, 93/97/EEC and 93/68/EEC.

The following Standards apply:

- EN 55014-1 2000 Electromagnetic compatibility - Requirements for household appliances, electric tools and similar apparatus.
- EN 61000-3-2 2000 Electromagnetic compatibility – Limits for harmonic current emissions.
- EN 61000-3-11 2000 Electromagnetic compatibility (EMC) – Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems.
- EN 55022 1998 Information technology equipment - Radio disturbance characteristics - Limits and methods of measurement.
- EN 61000-4-2 1995 Electromagnetic compatibility (EMC) Part 4: Testing and measurement techniques Section 2: Electrostatic discharge immunity test. EMC Base Publication.
- EN 61000-4-4 2004 Electromagnetic compatibility (EMC) Part 4-4: Testing and measurement techniques - Electrical fast transient/burst immunity test.
- EN 61000-4-6 1996 Electromagnetic compatibility (EMC) Part 4: Testing and measurement techniques. Section 6: Immunity to conducted disturbances, induced by radio-frequency fields.

Low Voltage Directive 2006/95/CE .

Directive 2003/11/EC Directive 2003/11/EC of the European Parliament and of the Council of 6 February 2003 amending for the 24th time Council Directive 76/769/EEC relating to restrictions on the marketing and use of certain dangerous substances and preparations (pentabromodiphenyl ether, octabromodiphenyl ether)

Directive 2002/44/EC of the European Parliament and of the Council of 25 June 2002 on the minimum health and safety requirements regarding the exposure of workers to the risks arising from physical agents (vibration) (sixteenth individual Directive within the meaning of Article 16(1) of Directive 89/391/EEC).

1.2 DESCRIPTION OF THE MACHINE AND ITS COMPONENTS

The SPECIAL 411 CSO band sawing machine produced by MACC has a sturdy frame made from welded and painted sheet-steel. The upper surface is designed to allow the complete draining away of the cutting fluid. The band holding bow is made of cast-iron and has generous dimensions, providing the cutting unit with the necessary strength and precision. The vice unit is also made of cast-iron and clamps the material to be cut securely. The bar-stop device allows the length required to be present and a constant level of performance for repeated cuts. The blade-holding bow is firmly attached to a reduction unit built onto the motor and to the base by means of a joint which allows 60° rotation to the right and 45° rotation to the left. This joint also allows the cutting movement to advance manually or by means of a pneumatic cylinder. The coolant pump is fitted to the machine base. An electro-mechanical band tensioning device, with gate microswitch, stops the band from advancing in the event of insufficient tension and moreover allows ideal operation conditions to be restored at any moment. This is confirmed by an illuminated pilot light. The main switch is located on the front panel. Another switch, located to the right of the main switch, allows the cutting liquid pump to be started.

The choice of one of the two motor rotation speeds and therefore cutting speed is carried out by means of a switch, also located on the front panel. The front panel is also fitted with an emergency stop button. The control lever, fitted with an ergonomic hand-grip and activation button with safety release action, reduces fatigue during operation to a minimum. The blade is protected by a guard with interlock which covers the upper area and the handwheels and by two adjustable lower guards which protect the operator from ejected shavings and coolant. The machine is supplied with a set of service spanners.

4.3 INTENDED AND UNSUITABLE USES OF THE MACHINE

The SPECIAL 411 CSO band sawing machine has been designed and built to cut bars, structural steel and ferrous metal pipes in accordance with the instructions contained in this manual. Therefore, the cutting of other materials is not permitted: if the above recommendations are not observed, the machine could be damaged and the health and safety of the operator put at risk. Cutting is not permitted, if the bar has not been first locked in the vice.

5. MAIN TECHNICAL DATA

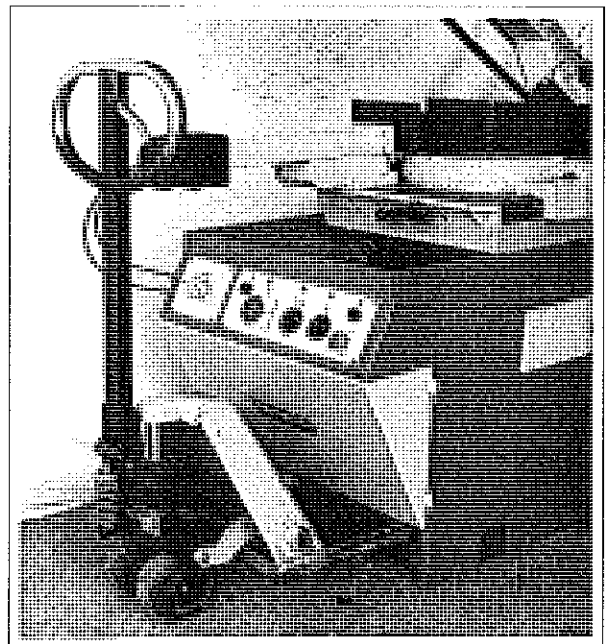
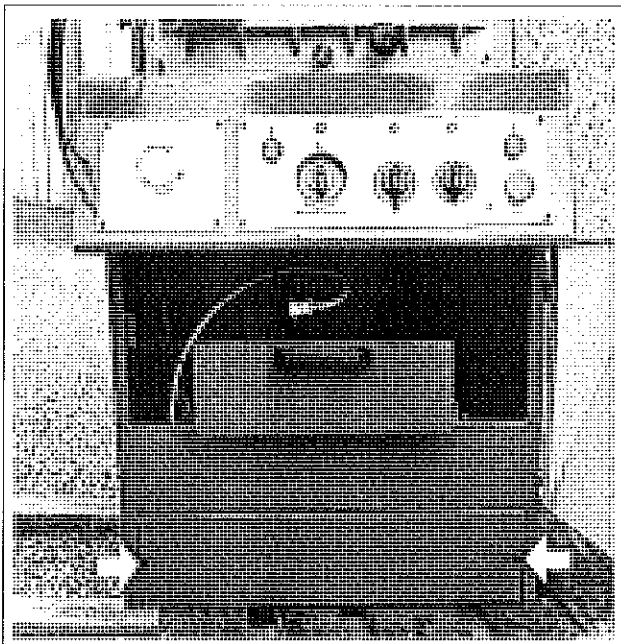
Under no circumstances should the following data be altered, this is in order to protect the correct functioning of the machine and to avoid creating safety risks for the operator.

Three phase power supply	
Motor power	0.9 - 1.6 kW
Motor revolutions	700 - 1420 rpm
Gearbox reduction ratio	i = 1 : 20
Cutting speed	38 - 77 m/1'
Electric pump	0.06 kW
Fly wheel dimensions	350 mm
Blade size (length x width x thick)	3200 x 27 x 0.9 mm
Cutting thickness	1,2 mm
Cutting angle	60° dx - 45° sx
Material clamping vice max opening	400 mm
Jaws height	150 mm
Jaws length	210 mm
Bed height	950 mm
Coolant tank capacity	15 litri ~
Machine weight	~5195 N (530 kg)

6. HANDLING AND TRANSPORTATION

For safe handling and transportation use a lift truck for movement indoors also indicated on the drawing 3 Encl. 2. Keep the machine in its normal position and avoid turning it upside down. If the machine is fastened to the pedestal, stability will be greatly reduced and therefore all the necessary measures should be taken to stop the machine from tipping over.

All handling and transportation operations should be carried out by trained staff.



7. MACHINE INSTALLATION

A. MACHINE CHECK

The machine should be checked to make sure that it has not been damaged during transportation and handling. If the machine appears to have been damaged, contact MACC immediately. Fit all the supplied accessories onto the machine such as the bar-stop 116 and the roller arm 54 (DRAW. 4 ENCL. 2).

B. FASTENING OF THE MACHINE

The machine will be able to operate in keeping with the technical parameters supplied by MACC if it is positioned correctly and fastened securely to the bench or the factory floor so that vibrations are minimal during operation. Consult drawing 4 SPECIAL 411 CSO Installation plan Encl. 2.

C. BAND ASSEMBLY

Remove the bow guard 2 by unscrewing the screws (DRAW. 11 ENCL. 5). Fit the band by inserting it first between the bearings of the blade guide heads and then on the two pulleys, tighten the blade slightly by means of the hand wheel 28 and replace the bow guard. Check that the band is fitted with the correct direction of teeth, as shown in drawing 5-6-7 enclosed document 3. Make sure that the band type (dimensions 3200x27x0.9) and its teeth pitch are suited to the material to be cut.

D. ELECTRICAL CONNECTION TO THE MAINS

Install a differential thermomagnetic switch with characteristics suited to the mains.

Make sure that the power supply voltage corresponds to the voltage on the motor plate. Connect the cable to the power supply line observing the colour codes of the individual wires, pay particular attention to the earth wire. Connect the machine, make sure that the rotation of the circular blade is in the direction shown by the arrow on the guard.

E. CUTTING COOLANT

For the cooling of the circular blade, fill the tank with emulsible oil obtained from a mixture of water and AGIP AQUAMET 700 EP oil with a percentage of 5-7%

8. MACHINE START UP AND OPERATION

8.1 DEVICES AND THEIR LOCATION

(The location of the devices described is shown on the SPECIAL 411 CSO installation plan drawing.4 Encl. 2)

Code 203	LOCKABLE MAIN SWITCH
Code 226	EMERGENCY BUTTON
Code 16	VICE
Code 116	BAR-STOP

8.2 TOOLS SUPPLIED

1	Allen wrench size 3
1	Allen wrench size 5
1	Allen wrench size 6
1	Allen wrench size 8
1	Allen wrench size 10

8.3 OPERATION

CHECKS TO CARRY OUT BEFORE EACH CUT

A. Tension the band by rotating the handwheel 28 until the limit switch (DRAW. 5-6-7 ENCL. 3). Remember at the end of the operation to loosen the hand wheel to avoid the slackening of the band.

B. Check that the hand indicates the required cutting angle (vice scale).

C. Make sure that the bow and the vice are locked by means of the lever 59 (DRAW. 8 ENCL. 4).

D. With the motor off, lower the bow and check that at the end of stroke, the band does not touch the counter-vice 004-A/38. If the band does touch, adjust the screw 225/95 located on the bow support 114/38 (DRAW. 8-9 ENCL. 3). By adjusting screw 225/95, the width of the working stroke can also be established.

E. Make sure that the piece to be cut is properly secured in the vice;

F. Make sure that the cooling liquid is circulating in the machine.

G. When starting the motor, make sure that the band rotates in the direction of the arrow shown in DRAW 5-6-7 ENCL. 3.

H. To obtain maximum cutting accuracy, the unit must be located the nearest possible to the work piece. Clamp the work piece with the vice. release the blade guide arm 023/35 (DRAW.5-6-7 ENCL.3) with handle 032/32 and move it near the vice jaw so that it doesn't touch it during the cutting operation, then secure it again.

CUTTING OPERATION

A. Before cutting, check that the inclination is the one required. In order to correct or change the inclination, place the bench lever 062/32 in position A (DRAW. 11 ENCL. 4) and after correction, move it back to position D strongly.

B. Clamp the material to be cut with the handwheel 058/35 after having positioned the vice 3-4mm near the piece to be cut by turning the lever 023/38 from position C to position B (DRAW. 10 ENCL. 4). With selector 100/90 in M position turn the main switch 002/90 and the speed change over switch 018/90 to the position required. Grip the handle 046/05 situated on lever 035/32 and push the button. The blade starts to rotate, position the blade carefully on the piece to be cut, then increase the pressure in order to accelerate the cutting operation without forcing.

C. With selector 100/90 in CSO position, turn the main switch 002/90 and the speed change over switch 018/90 to the position required. After having started the unit by pressing the START push button 086/90, the blade starts to rotate. The down stroke of the bow can be adjusted by means of the appropriate regulator. Position the blade carefully on the piece to be cut. Then increase the pressure with the regulator in order to accelerate the cutting operation without forcing.

- C. To make a series of cuts , position the bar stop in correspondence of the size required . Fix it into position by using the handwheel 077/25 (DRAW. 10 ENCL. 4) .
- D. To replace the band , carry out the same operations used to assemble the band (chapter 7c) .
- E. For the choice of blade see table ENCL.1.
- F. Every time the machine is switched on , when it switches off or if the emergency push-button 226 has been pressed , release first the emergency push-button to re -start the cycle .

We strongly discourage the use of blades with ruined or insufficiently sharp cutting edges

Attention!!! With selector in CSO position is strictly forbidden to perform cuts by forcing the bow manually . This machine has been conceived to perform cuts by falling action only . Any manual operation can seriously damage the machine .

8.4 SPECIAL SAFETY CHECKS

- A. Before using the machine, check carefully that the safety devices are in good working order, that the mobile parts are not blocked , that no parts are damaged and that all the components are installed correctly and are functioning properly .
- B. Make sure , before operating the machine, that the screws of the guards and other protective devices are adequately secured , especially the screws of the bow guard .
- C. Check that the safety microswitches and the emergency button are functioning correctly . Test them during a loadless machine cycle .
- D. Make sure that the mobile guard does not leave uncovered an angle of more than 5° in order to prevent fingers from entering .
- E. Pay attention to environmental conditions . Do not expose the machine to rain ; to not use it in damp environments , position the machine on a clean dry floor that has no oil or grease stains .
- F. Before using the machine , the operator should make sure that all tools and service spanners used for maintenance or adjustment have been removed .


8.5 GENERAL SAFETY RULES

- A. Wear appropriate clothing . The operator's clothing should not be loose or dangling nor should it have parts which could easily get caught . Sleeves should contain elastic . Belts , rings or chains should not be worn . Long hair should be kept in a net .
- B. Avoid unstable operating positions . Find a safe and evenly balanced position to operate the machine .
- C. Keep the work area tidy , untidiness increases the risk of accidents .
- D. Do not use the power supply cable to disconnect the plug from the socket . Protect the cable from high temperatures , oil or sharp edges . For outdoor use , only use extension cables which are in line with current regulations .

8.6 MEASURES TO PREVENT RESIDUAL RISKS

- A. The removal of guards and tampering with the safety devices is strictly forbidden .
- B. Gloves should always be worn .
- C. Standard work clothing should be used and kept closed and should not have flapping parts .
- D. The machine should not be cleaned with liquids under pressure .
- E. In the event of fire , extinguishers should not be used unless they are the powder type . The electric power supply to the machine should always be disconnected in these circumstances .
- F. Do not insert foreign bodies into the motor cover and to not supply the machine with voltage by tampering with the safety microswitches or main switch .
- G. Take the necessary precautions to avoid the machine being started by other people during loading , adjustment , piece changing or cleaning .

Safety , Guidance , Notice labels on the machine

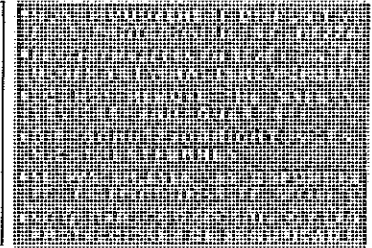
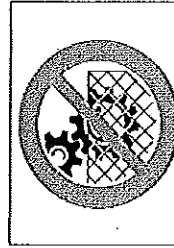


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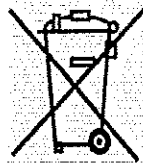
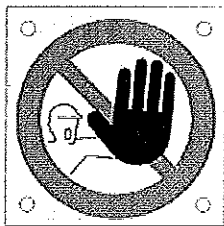
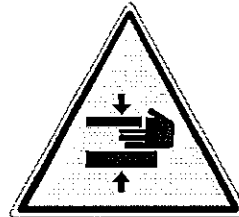
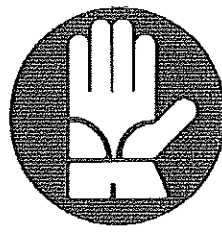
CE

Modello - Model	Massa - Weight (Kg)
Matricola - Serial number	Anno - Year

eni Centralina idraulica - Hydraulic unit: AGIP ARNICA 32
Scatola Ingranaggi - Gearbox : AGIP BLASIA 220
Punti a grasso - Grease points : AGIP GREASE MU 2



METTERE IN TENSIONE LA LAMA RUOTANDO IL VOLANTINO FINO A FINE CORSA.
PUT TENSION ON THE BLADE BY ROTATING THE HANDWHEEL TO THE END OF STROKE.
DAS SÄGEBAND SPANNEN, INDEM DAS HANDRAD BIS ZUM ENDE GEDEHRT WIRD.
METTRE EN TENSION LA LAME EN TOURNANT LE VOLANT JUSQU'À LA FIN DE COURSE.
TENSIONAR LA CINTA GIRANDO EL VOLANTE HASTA EL FINAL DE CARRERA.



COLLEGATO
CONNECTED
230 VOLT

COLLEGATO
CONNECTED
400 VOLT

9. MAINTENANCE AND REPAIRS

9.1 GENERAL SAFETY MEASURES

- Lockable main switch . Use the padlock in the event of machine failure or replacement of the band . The padlock key should be entrusted to a responsible person .
- Before carrying out any work on electrical equipment , remove the power supply plug from the control panel (disconnect voltage) .
- Only use cables to supply power , which have a cross-section suited to the power of the machine .
- Opening key . The keys of the machine should be kept by authorized personnel . Do not leave the keys for doors which provide access to the hydraulic or electrical parts or keys to lockable switches in easy of reach of unauthorized personnel .
- Repairs should only be carried out by authorized personnel . Only spare parts made by the original manufacturer should be used , otherwise these could cause damage or injury .
- Do not insert foreign bodies into the motor cover and to not supply the machine with voltage by tampering with the safety microswitches or main switch .
- Take the necessary precautions to avoid the machine being started by other people during loading, adjustment, piece changing or cleaning .

9.2 Routine checks and maintenance

FREQUENCY (working hours)	OPERATION
100 hours	Adjustment blade guide bearings
1000	Lubrication of mobile parts in the piece locking vice (GREASE AGIP MU 2)
50	Cleaning of the coolant tank and filter check
if necessary	Check functioning of bench lever

9.3 DESCRIPTION OF ROUTINE MAINTENANCE

A. Adjustment of the blade guide bearings

Loosen the screw 69, rotate the cams 027/35, so that the blade guide bushings vertically position the blade in axis (DRAW. 5-6-7 ENCL. 3). Tighten the dowels 67 until the blade secured. Loosen the dowels 67 slightly (about 1/10 of a turn). The front blade guides must be positioned the nearest possible to the piece to be cut. Check every 3 months the existing tolerance between the blade guides, making sure that it does not exceed the blade thickness of one tenth of a millimeter, so as to avoid inaccuracies in the cut squaring. Periodically check with mounted blade that the blade guide bearings rotate freely.

B. Lubrication of mobile parts of piece locking vice

Remove jaw 27 (DRAW.10 ENCL.4), withdraw vice 16 completely by lowering the lever 22. Clean and grease the mobile parts of the counter-vice and vice 16-17. In case of sliding difficulties or play the clamp guides carry out the following operations: loosen nut 57-A, adjust dowel 56-A and secure nut 57-A.

C. Cleaning of the coolant tank.

The coolant tank can be cleaned by simply removing the crucible 104 (DRAW. 12 ENCL. 5). Empty the coolant from the tank and collect the coolant in a container for future disposal. Clean away the shavings and the metallic powder, taking care not to scatter this over the machine especially around the motor and the box containing the electrical equipment. Fill the tank with the amount and liquid stated earlier.

D Checking of bench lever functioning

Check regularly that the rotation release - locking lever is working properly. In the event of the lever not locking correctly, loosen grub screw 123 (draw.12 Encl.5), tighten nut 114 and fasten grub screw 123 again. Make sure that with the bench lever in position D, arm 109 which supports the bow, can rotate freely.

10. INFORMATION REGARDING ENVIRONMENTAL NOISE

An environmental noise test carried out on the SPECIAL 411 CSO band saw machine, identical to the machine to which these operation instructions refer, has given the following results:

ACOUSTIC RADIATION PRESSURE

1. $L_{Aeq} = 83,2$ dB (A)
2. $L_{peak} = 90,6$ dB (the maximum acceptable value is 140 dB).
3. The level of background noise has no influence = 48.5-54.2 dB (A).

The considerable data are the result of tests made under the D. lgs. 277/1991 in the implementation of the directives nr. 80/1107/CEE, nr. 82/605/CEE, nr. 84/477/CEE, and 88/642/CEE.

11. LAYING OFF AND DISMANTLING

11.1 LAYING OFF

If the machine is to be laid off or left idle for a long period, the following operations must be carried out:

1. Disconnect the machine from the electricity mains.
2. Empty oil from the gear box and cooling liquid from its tank
3. Clean carefully the machine by getting rid of all traces of grease, especially on the worked parts that must be protected with anti-oxidants.
4. Cover the machine with a sheet, preferably not plastic as it can cause rust due to the humidity condensation.
5. Store the machine in a closed, dust-free place.

11.2 DISMANTLING

If the machine must be definitively dismantled, its components must be sub-divided for the purpose of a possible recycle of the materials and for the environment safety. The following table is given for your guidance:

Steels	Electric and electronic components	Light alloy	Cast iron	Copper bronze	Plastic and rubber	Various
Shafts, Flanges, Pivots	Motor winding	Motor casing	Structural parts	Bushings	Seals	
Rollers	Electronic panel	Cylinders			Handwheels	
Base					Handles	
Springs						
Tank						
Plate with electrical components	Push buttons and control systems (relays, transformers, etc.)				Cable support chain	
Guards						

Used oil and materials must be disposed of according to 75/439/EEC and 87/101/EEC Directives and to country specific regulations.

The disposal of electrical components is provided for by European Directives 2002/95/CEE and 2002/96/CEE.




12. LIST OF SPARE PARTS

POS.	DESCRIPTION	CODE	Q.TY
1	Bow	012-C/36	1
2	Bow guard	056/42	1
3	Cover plate	057/42	1
4	Washer $\varnothing 12,5/45$ sp.6	040/06	4
5	Base	014/42	1
6	Bearing 6207 2RS	103/32	2
7	Idle pulley spacer	016/36	1
8	Vice gib	008/38	1
9	Idle pulley	015/36	1
10	Blade tightener pin	014/36	1
11	Blade tightener guide plate	046/32	2
12	Bench	025/42	1
13	Rotating plate	026/42	1
14	Coolant pump	090/90	1
15	Blade tightener screw	039/32	1
16	Vice	005/38	1
17	Vice support	028/42	1
18	Vice threaded pin	009/38	1
19	Vice screw	014/38	1
20	Vice handwheel	058/35	1
21	Vice flange	098/38	1
22	Vice lever	023/38	1
23	Cage AXK 20 35	109/32	1
24	Blade tightener bushing	041/38	1
25	Thrust bearing AS 20 35	108/32	2
26	Belleville washer 40x20,4x1,5 DIN 2093	458/95	18
27	Vice jaw	010/42	1
28	Blade tightener handwheel	058/35	1
29	Micro ERSCE 100 00 A I	022/90	1
30	Guard	010/35	1
31	Counter-vice loading side	004/39	1
32	Counter-vice exit side	005/39	1
33	Cylinder hinge + pin	041/39	1
34	Joint fork M10x1,25 d 25/35	040/39	1
35	Handle rod	035/32	1
36			
37	Worm gear reduction unit shaft	181/36	1
38	Worm gear reduction unit R=1/20	100/42	1
39	Motor M100 V400/50 8/4P B5 hp1,2/2,2	127/80	1
40			
41	Guide barrel	015/39	1
42	Chip tray	001-B/39	1
43	Cooling tank	001-C/39	1
44	Valve EUROPA $\varnothing 3/8"$	035/96	1
45	CSO cylinder	040/42	1
46	Micro ERSCE 100 00 S5 I	030/90	1
47			
48	Bearing 6208 2RS SKF	054/35	1
49	Spring lever	032/14	1
50	Eye tie rod M12x50 UNI 6058	035/38	1
51	Revolving plate block pin	024/39	1
52			
53	Spring pin	017/32	1
54			
55	Motor pulley	006/36	1
56	Washer for rotating plate	020/14	3
57	Descent regulator	100/38	1
58	Blade guide fastening plate	034/32	1
59	Handle M12x30	044/09	1
60	Rear guard grate	001-D/39	1
61			
62	Knob rod support	012/42	1
63	Bow guard hinge	013-A/36	2
64	Mobile blade guide rod	027-A/32	1

POS.	DESCRIPTION	CODE	Q.TY
65	Valve "MINI" MF 1/4	031/96	1
66	Front blade guide	026/35	1
67	Vice side stop block	031/42	2
68	Blade guide plate	034/42	2+2
69	Bow support	027/42	1
70	Rear guard	042/38	1
71	Bearing 608 2RS	055/35	2+2
72	Blade guide eccentric bushing	027/35	2+2
73			
74	Rear blade guide	025/35	1
75	Fixed blade guide rod	028-A/32	1
76			
77	Rotating pin	011/42	1
78	Bearing 32008 XA	015/38	2
79	Rotation pin nut	027/38	1
80	Brush	022/42	1
81	Brush support	024/42	1
82	Brush stop bush	023/42	1
83			
84	Graduated rule	011/39	1
85	Millimetric rule	012/39	1
86	Hydraulic cylinder bracket	061/38	1
87	Cylinder bracket pin bush	070/38	2
88	Spring holder shelf	013/42	1
89	Return spring	031/38	1
90	Sphere ø3/8"	101/38	1
91	Eye tie bushing L.72 M10	103/11	1
92	Blade guide guard	035/42	1
93	Handle M8x20	025/21	1
94	Vice lever handle ø16 90mm	086/38	1
95	Handle with button	046/05	1
96	Micro Matsushita AH715079	028/90	1
97	Antigrease ring	020/35	2
98	Micro fastening bush	120/38	1
99	Micro fastening plate	051/38	1
100	Micro ERSCE E 100 00BI	023/90	1
101			
102			
103	Pin return spring	025/11	1
104	Positioning pin	009/39	1
105	Left counter-vice bracket	009/42	1
106	Right counter-vice bracket	009/42	1
107	Roller support	019/39	1
108	Roller	045/36	1
109	Control panel	053-C/38	1
110	Eye tie rod M8x40	525/95	1
111	Eye tie rod M8x70	527/95	1
112			
113			
114			
115			
116	Millimetric rod	077/32	1
117			
118	Metric gauge	080/32	1
119	Stopping rod	016/39	1
120	Stopping rod support	079/32	1
121	Handwheel ø40 M8x25	077/25	1
128	Handle M12x45	037/32	1
130	Front cover	001-E/39	1
146			
147			
148			
149			
150			

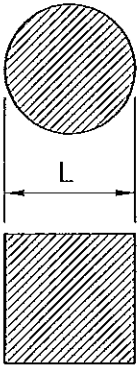
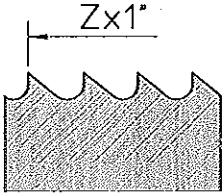
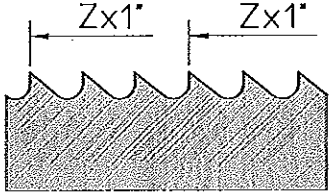
POS.	DESCRIPTION	CODE	Q.TY
200	Plate with electrical components	054-B/36	1
201	Control panel	052-C/38	1
202	Fuse 10x38 Gg 1A	202/90	2
203	Change-over switch VEMER CA0120000R03	018/90	1
204			
205	Transformer 30VA 0-400V 0-24V	045-A/90	1
205	Transformer 30VA 0-230V 0-24V	045-B/90	1
206			
207			
208	Fuse 10x38 AM 10A	206/90	3
209	Fuse carrier WEBER PCH3x38	092/90	1
210	Omega holed bar cm.10	046/90	1
211	Omega holed bar cm.17	047/90	1
212	Terminal CABUR CBD.2	222/90	22
213			
214			
215	Remote control switch LC1-D2	032/90	1
216			
217			
218	Thermal relay LR2-D138/10/12	053/90	1
219	Fuse carrier WEBER PCH1x38	093/90	1
220	Fuse carrier WEBER PCH2x38	094/90	1
221	Fuse 10x38 gG 2A	203/90	1
222	White light	266/90	2
223	Green light	267/90	1
224	Start button	086/90	1
225	Selector	100/90	1
226	Emergency button	085/90	1
227	Coolant pump switch	006/90	1
228	Main switch VEMER CA0120003207+G595	002/90	1
228	Yellow terminal cover G3228	065/90	1
229	Earth connection bar	050/90	1
230	Control panel seal	054/90	1

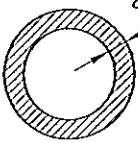
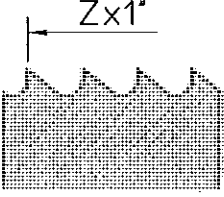
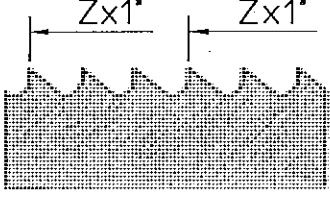
CAPACITA' DI TAGLIO - Special 411 M-CSO-S

CAPACITA' DI TAGLIO CUTTING CAPACITY - CAPACITE DE COUPE SCHNITTKAPAZITAET - CAPACIDAD DE CORTE			
90°	300	280	200 x 400
45° Sinistra - left - links - gauche	180	160	110 x 180
45° Destra - right - droite - rechts	240	220	120 x 240
60° Destra - right - droite - rechts	140	140	140 x 140

SCELTA DELLA LAMA

SCELTA DELLA LAMA
SELECTION OF BLADE
CHOIX DE LA LAME
WAHL DES SAEGERBLATTS
SELECCION DE LA HOJA

 L mm			
	≤40	8	6/10
	>30<80	6	5/8
	>60<90	4	4/6
	≤100	3	3/4

 S mm			
	≤1,5	14	-
	>1<2	10	10/14
	>2<4	8	8/12
	>4<8	6	6/10
	>6<12	6	5/8
	≤12	4	4/6

Velocità di taglio La macchina è dotata di due velocità di taglio		38-77 m/1'
Cutting machine The machine is equipped with two cutting speeds		38-77 m/1'
Vitesse de coupe La machine est dotée de deux vitesses de coupe		38-77 m/1'
Schnittgeschwindigkeit Die Maschine ist mit zwei Schnittgeschwindigkeiten ausgestattet		38-77 m/1'
Velocidad de corte La máquina esta dotada de dos velocidades de corte		38-77 m/1'
Materiale Material Materiel Material Material		Velocità di taglio m/1' Cutting machine m/1' Vitesse de coupe m/1' Schnittgeschwindigkeit m/1' Velocidad de corte m/1'
Acciai da costruzione Fe37+Fe42 Structural steel Fe37+Fe42 Aciers de construction Fe37+Fe42 Baustahl Fe37+Fe42 Acero de construcción Fe37+Fe42		Pieni Solid Pleins 77 Valles Material Pies Profilati Structural steel 77 Profils Profile Perfiles
Acciai da costruzione Fe50+Fe70 Structural steel Fe50+Fe70 Aciers de construction Fe50+Fe70 Baustahl Fe50+Fe70 Acero de construcción Fe50+Fe70		77
Acciai al carbonio C40+C60 Carbon steel C40+C60 Aciers au carbone C40+C60 Kohlenstoffstahl C40+C60 Acero de carbono C40+C60		77
Acciai legati Alloyed steel Aciers allié Legierter Stahl Acero aleado		38
Acciai inox Stainless steel Aciers inoxydables Rostfreier Stahl Acero inoxidable		38
Ghisa grigia Grey cast iron Fonte grise Grauguß Fundición gris		77
Leghe d'alluminio Aluminium alloys Allieges d'aluminium Legierungen aus Aluminium Aleación de Aluminio		77
Bronzi Bronze Bronze Bronze Bronze Bronces		77

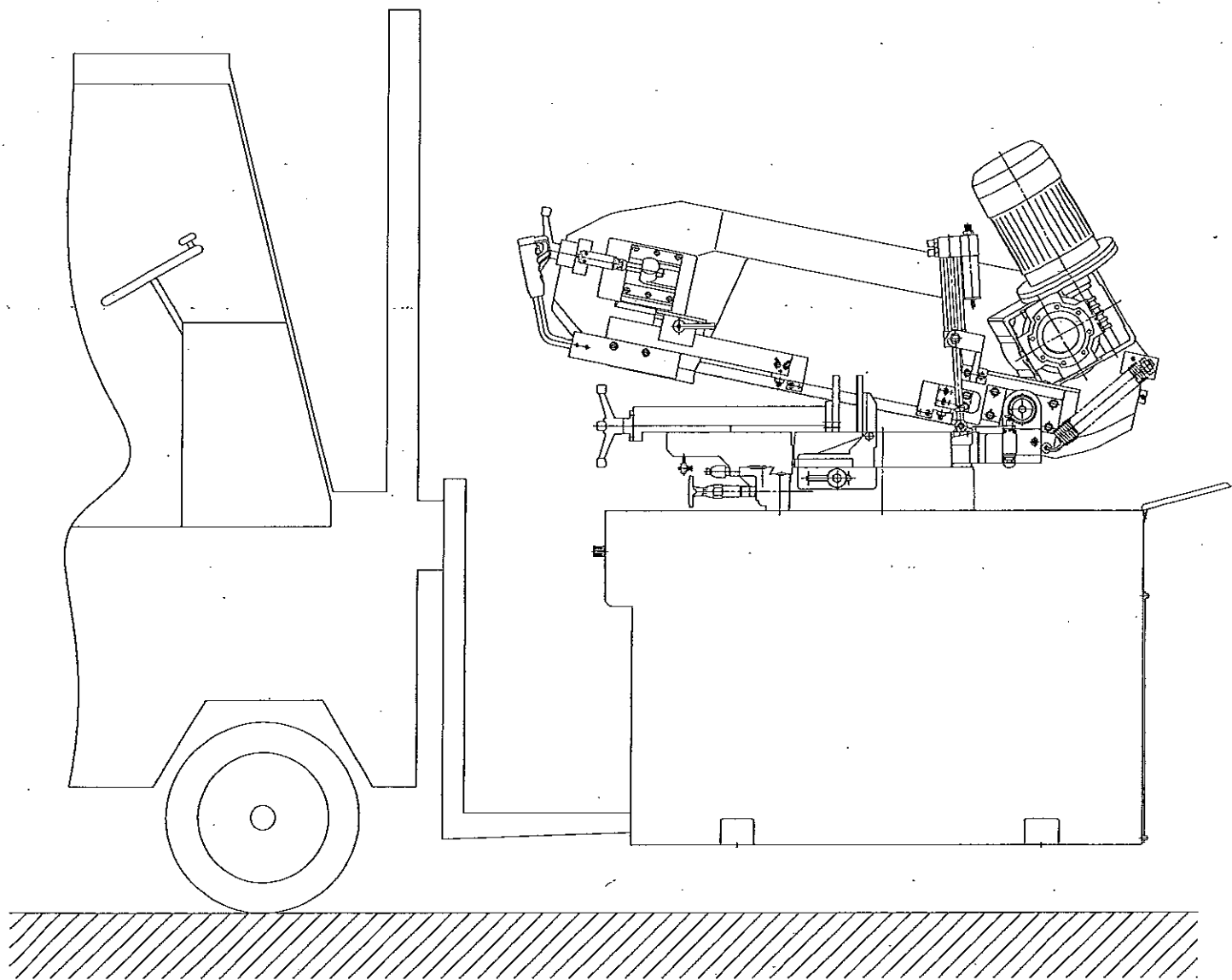
MOVIMENTAZIONE E TRASPORTO

Handling and transportation

Manutention et transport

Handhabung und Transport

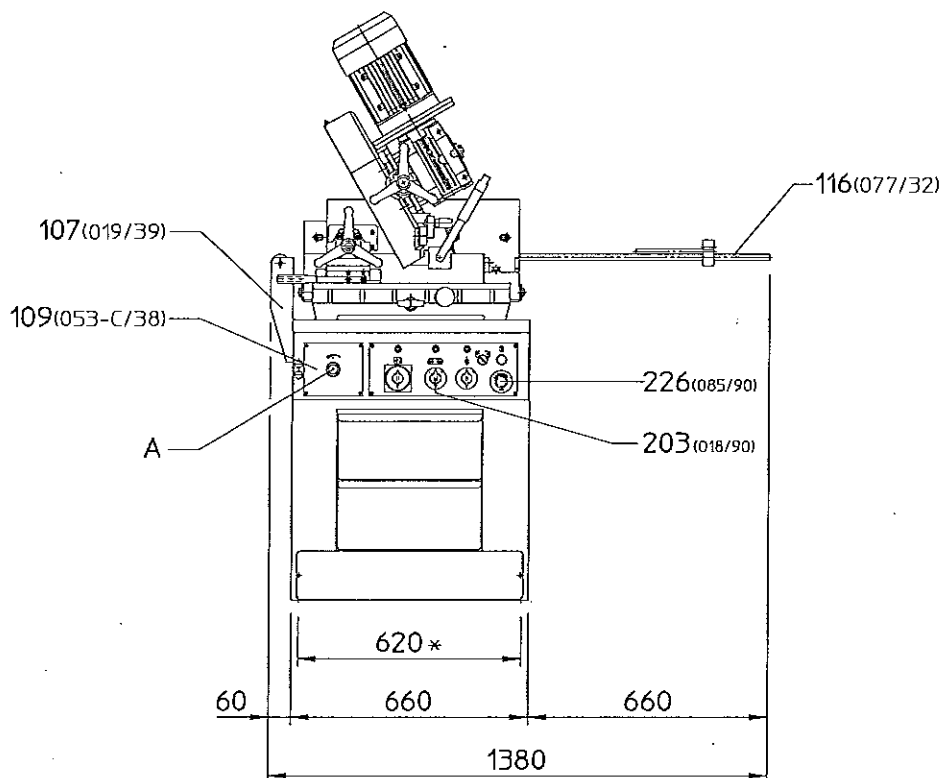
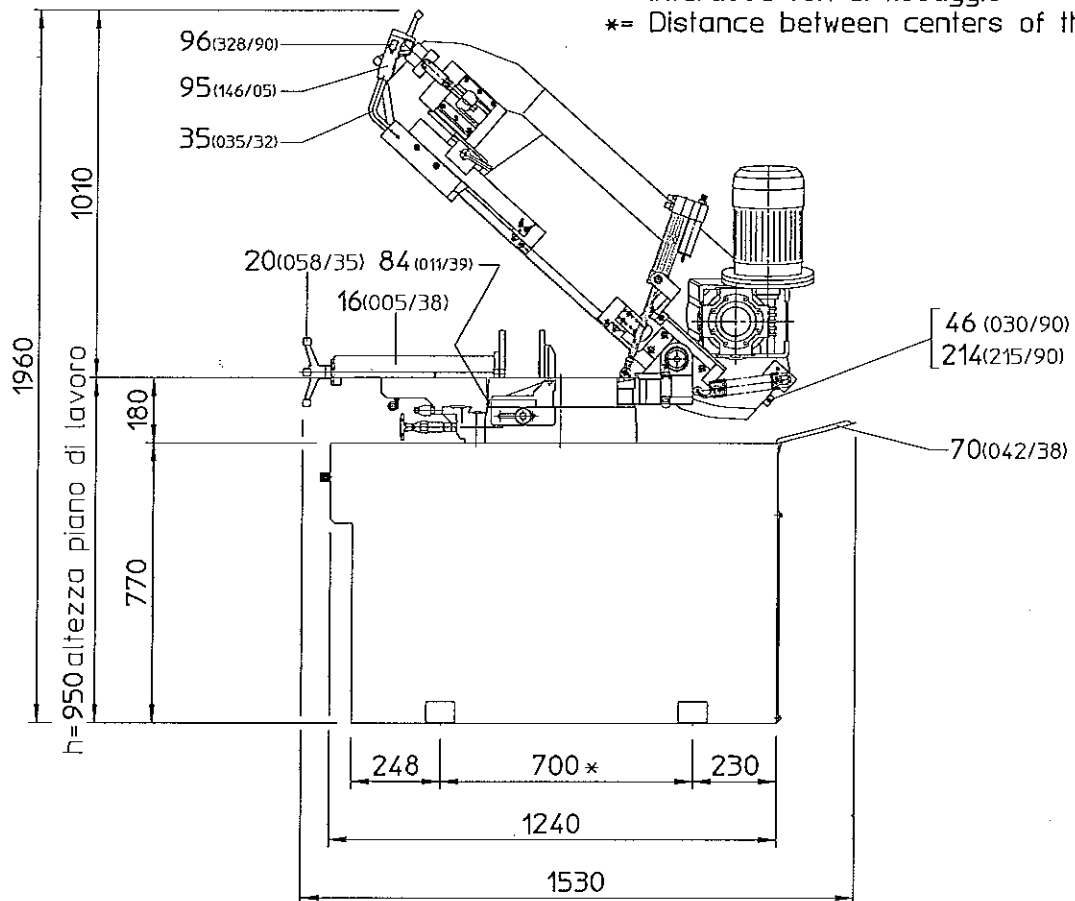
Movilización y transporte

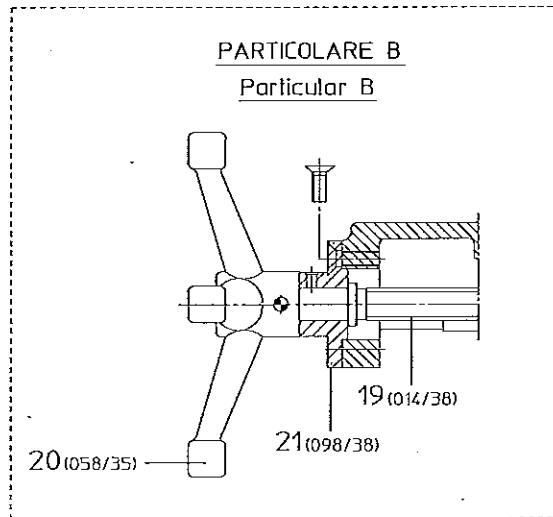
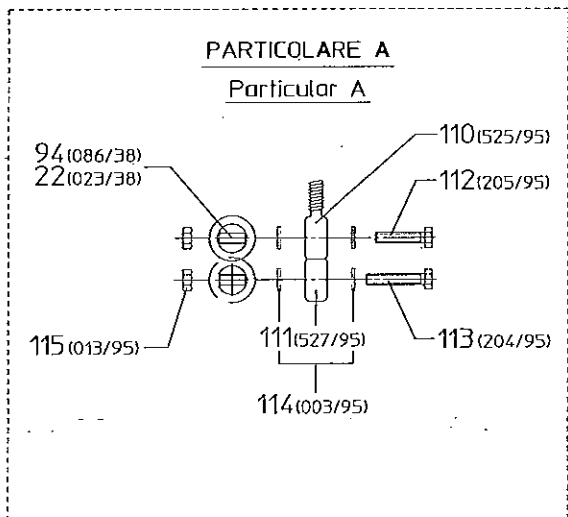
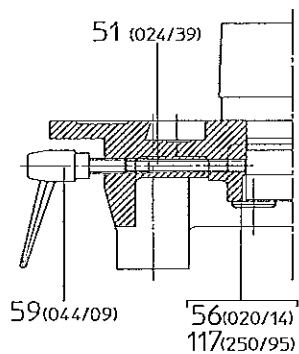
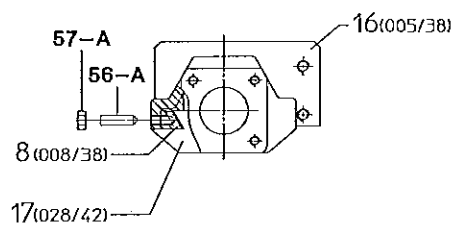
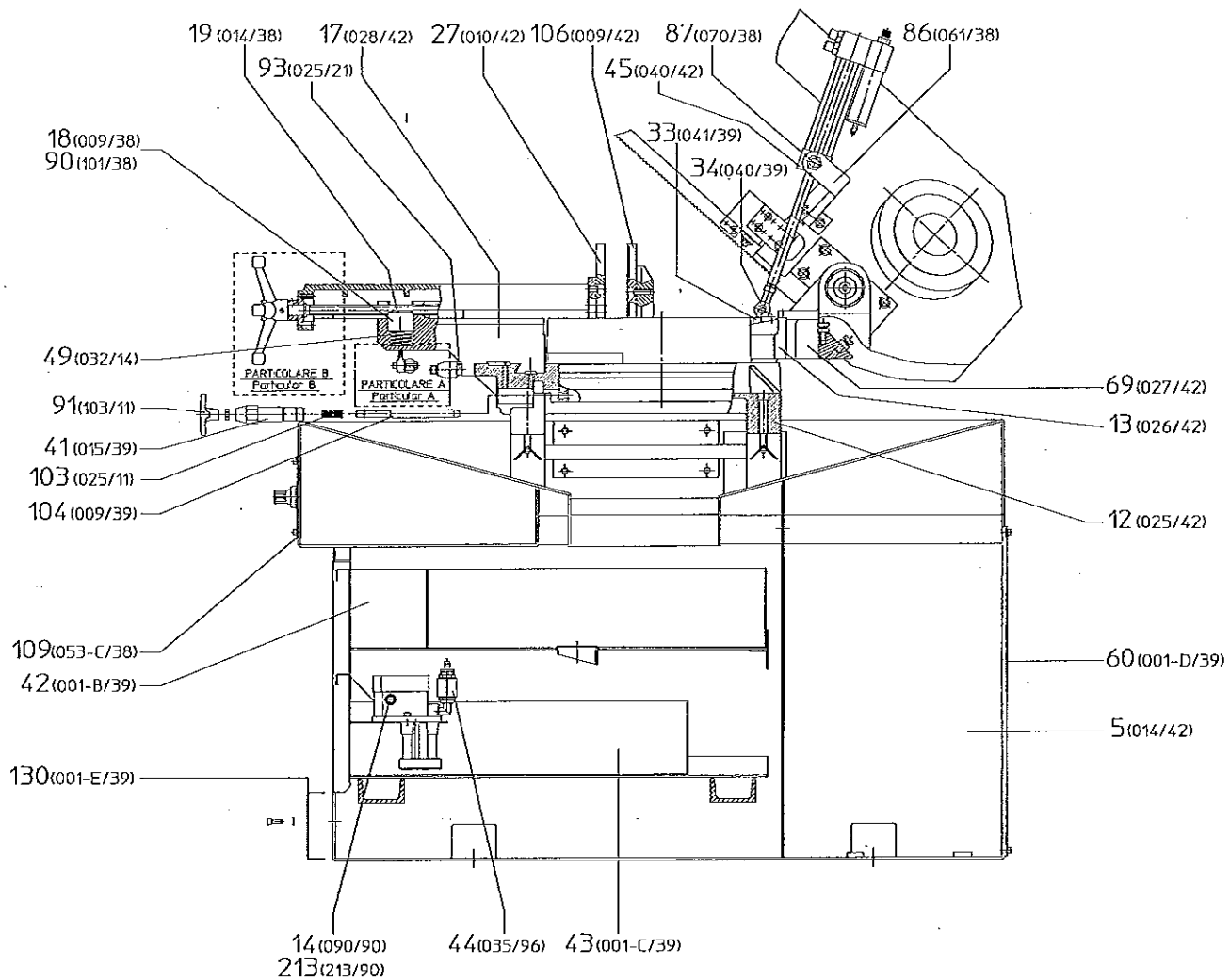


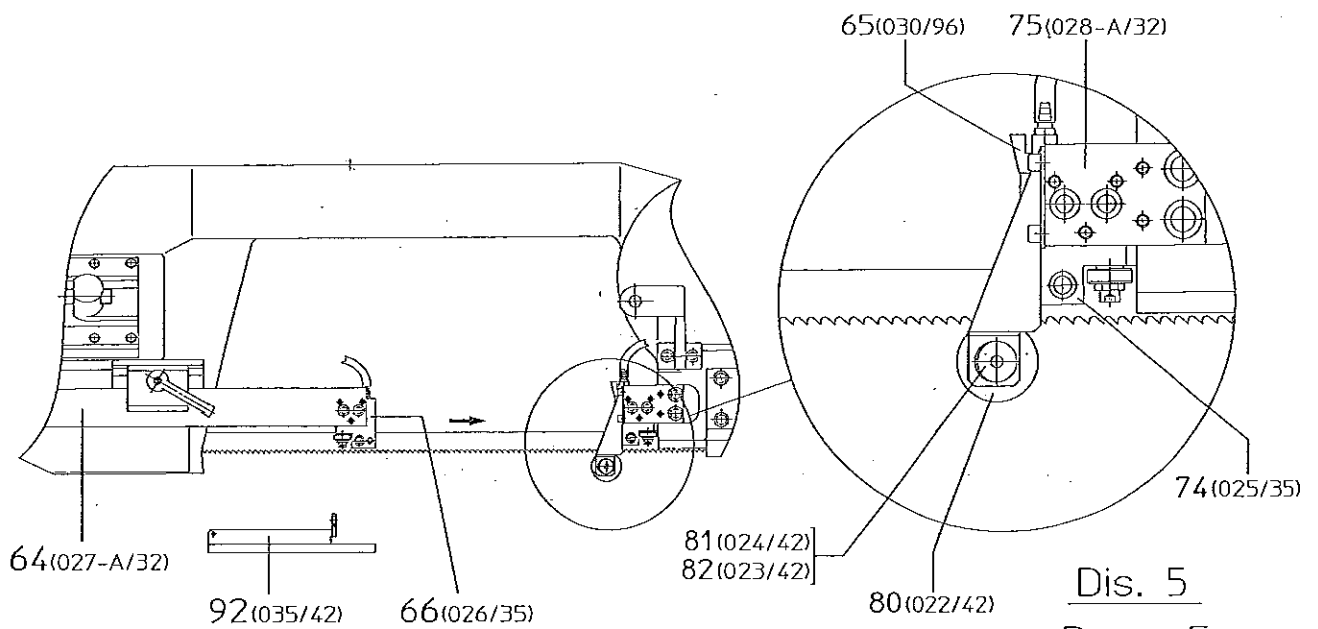
DIMENSIONI D'INGOMBRO ED INSTALLAZIONE

Overall dimensions and installation
 Dimensions hors-tout et installation
 Aussenabmessungen und installation
 Dimensiones máximas extremas e instalación

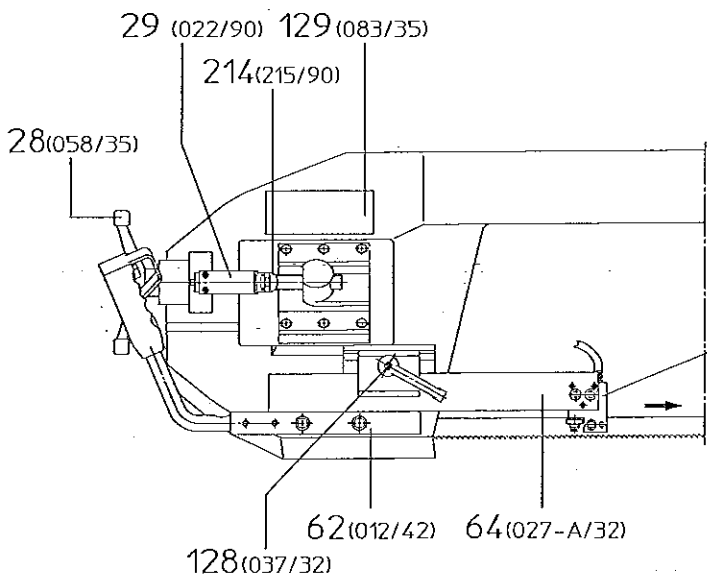
*= Interasse fori di fissaggio
 *= Distance between centers of the fixing holes





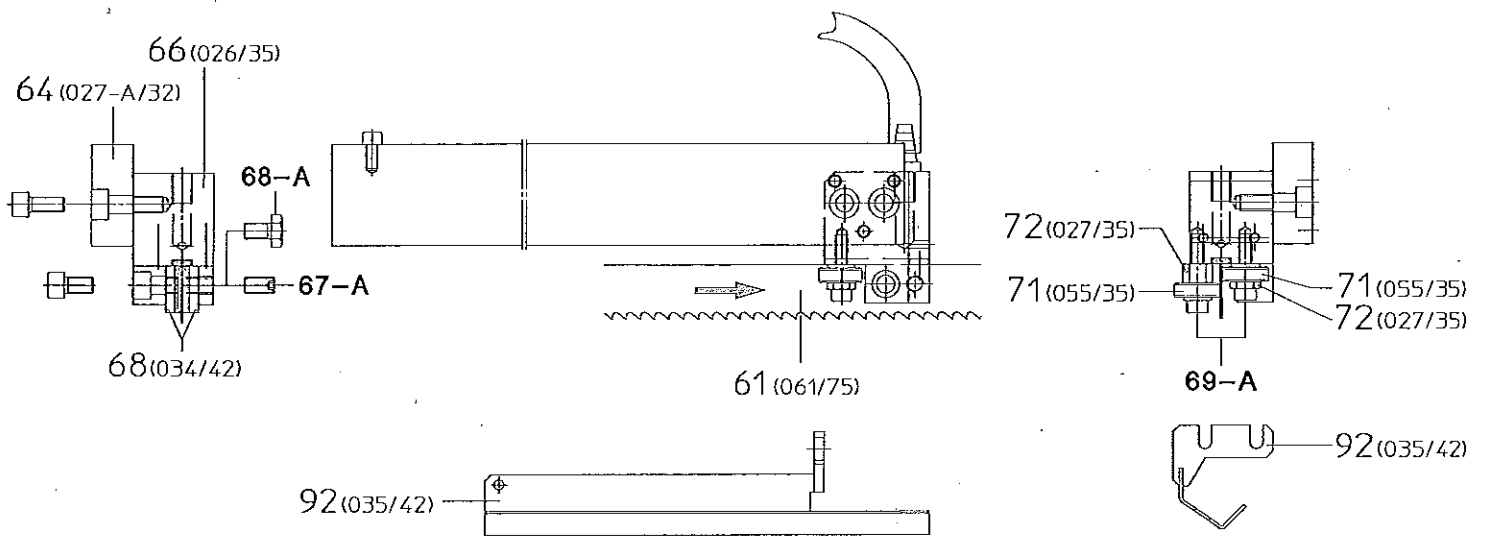


Dis. 5
Draw. 5

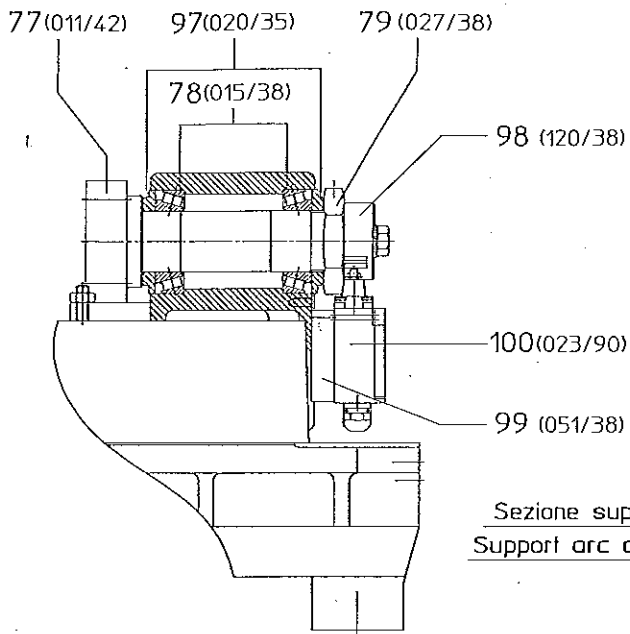


PATTINO GUIDA ANTERIORE
FRONT BLADE GUIDE
PATIN GUIDAGE ANTERIEUR
VORDERER FÜHRUNGSKUFE

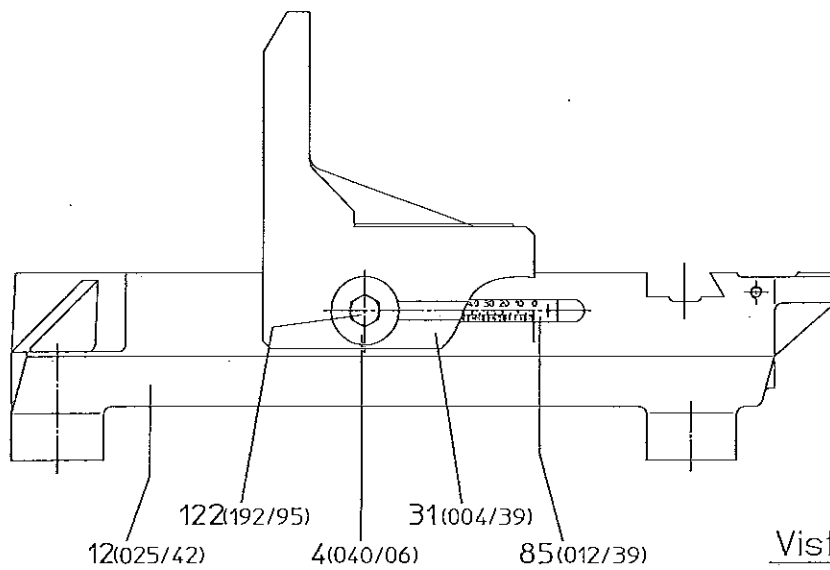
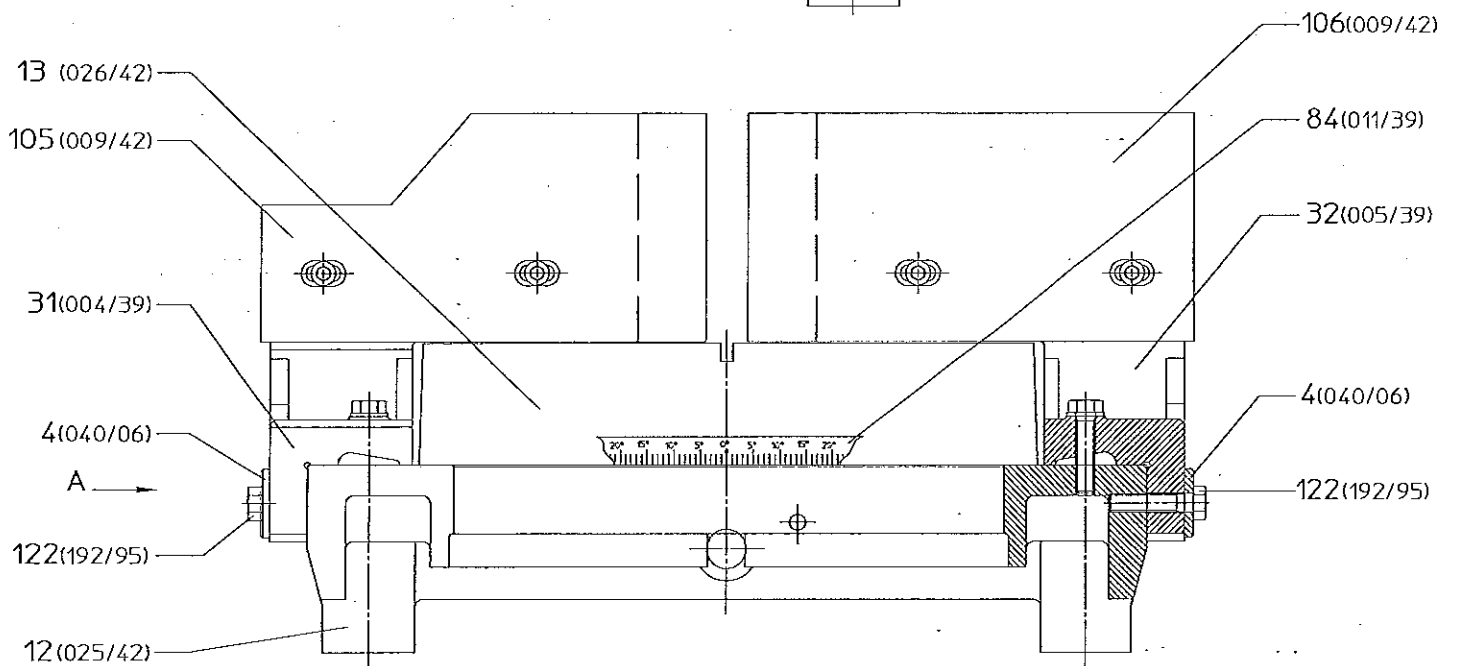
Dis. 6
Draw. 6



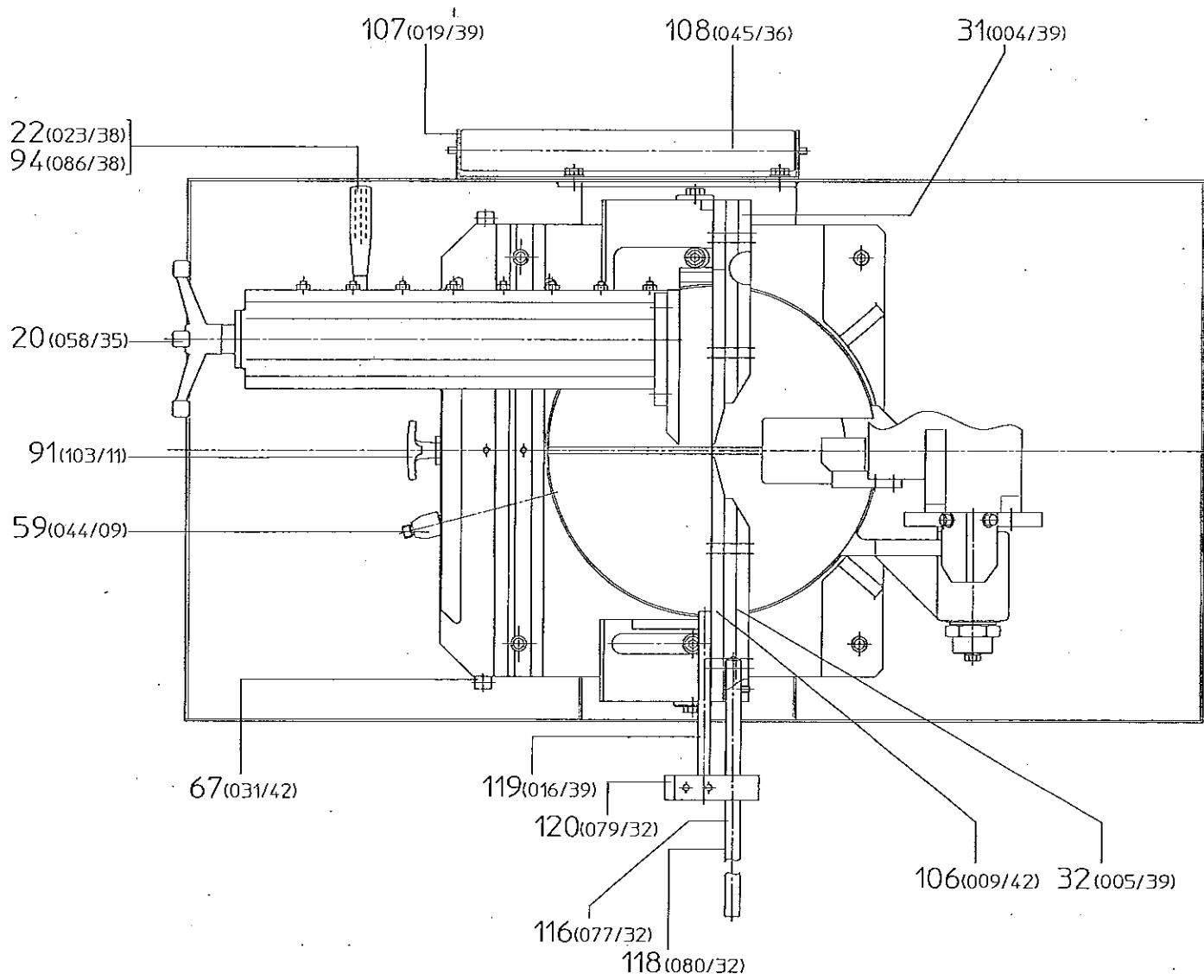
Dis. 7
Draw. 7



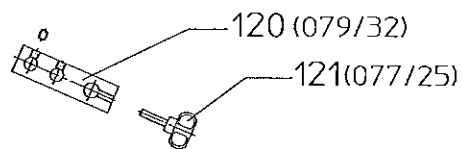
Sezione supporto arco
Support arc cutaway view

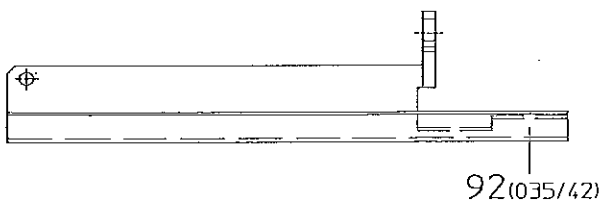
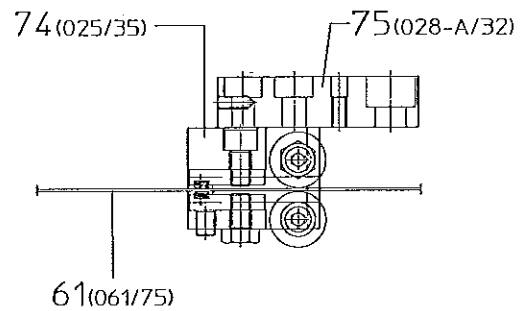
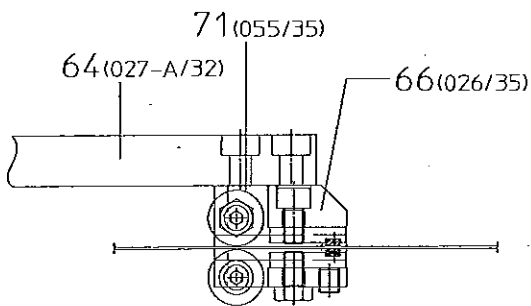
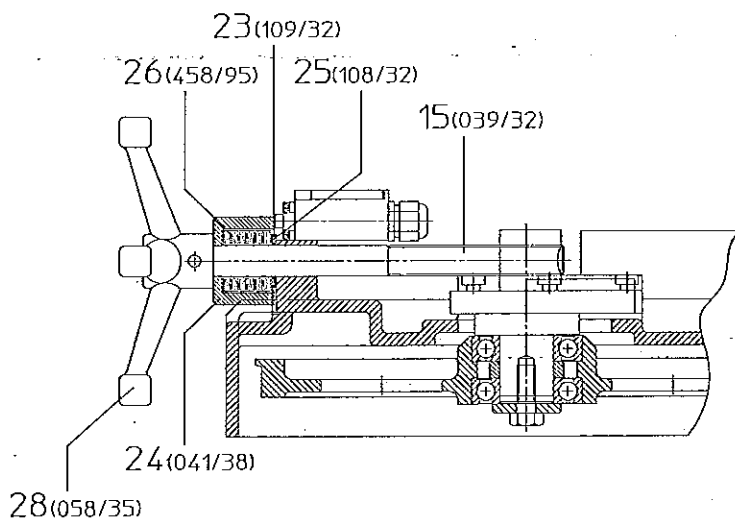
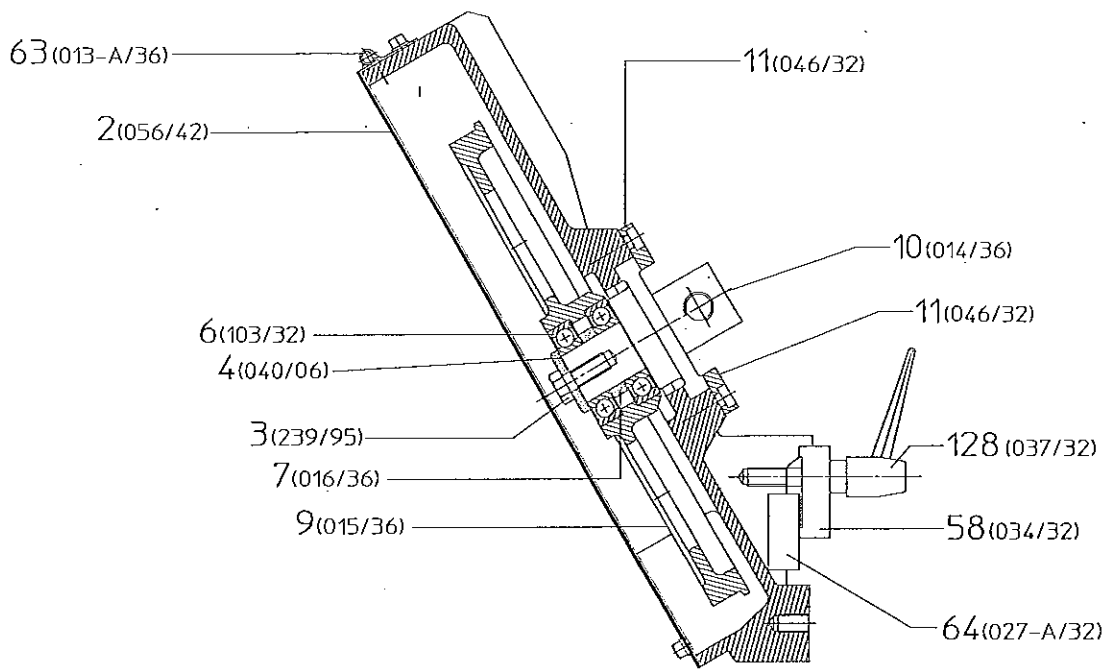


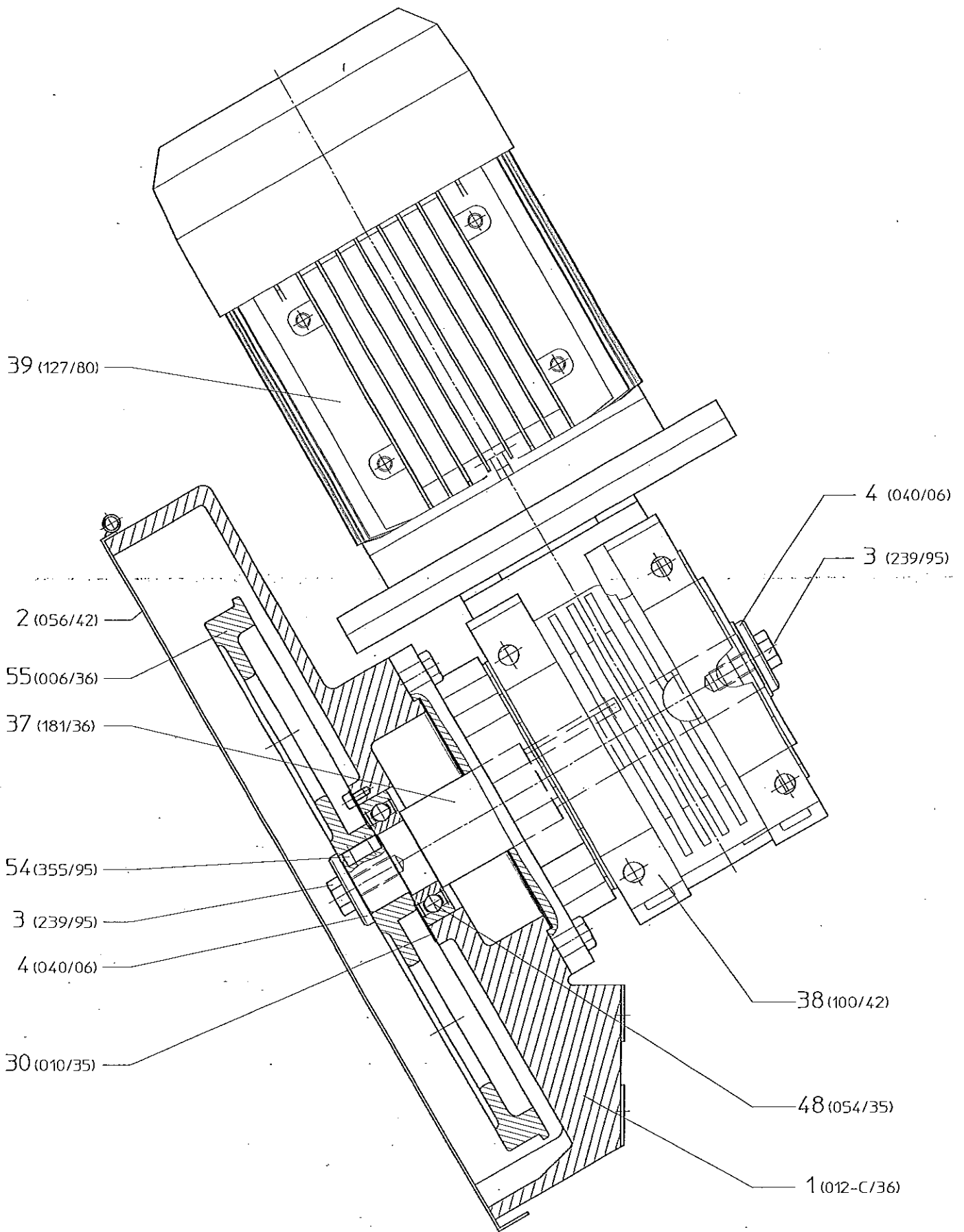
Vista da A

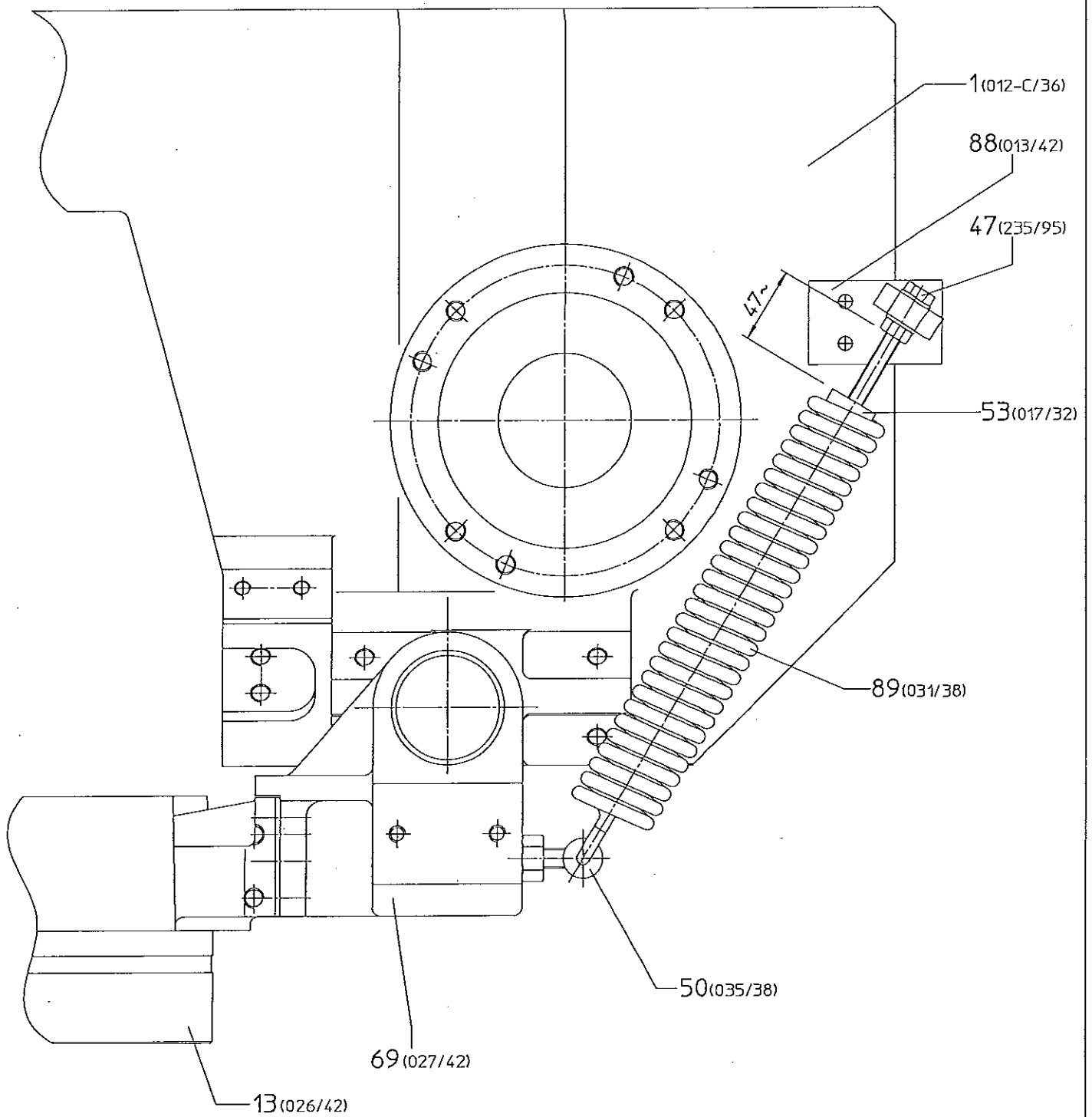


PARTICOLARE FERMO BARRA
PARTICULAR BAR STOP



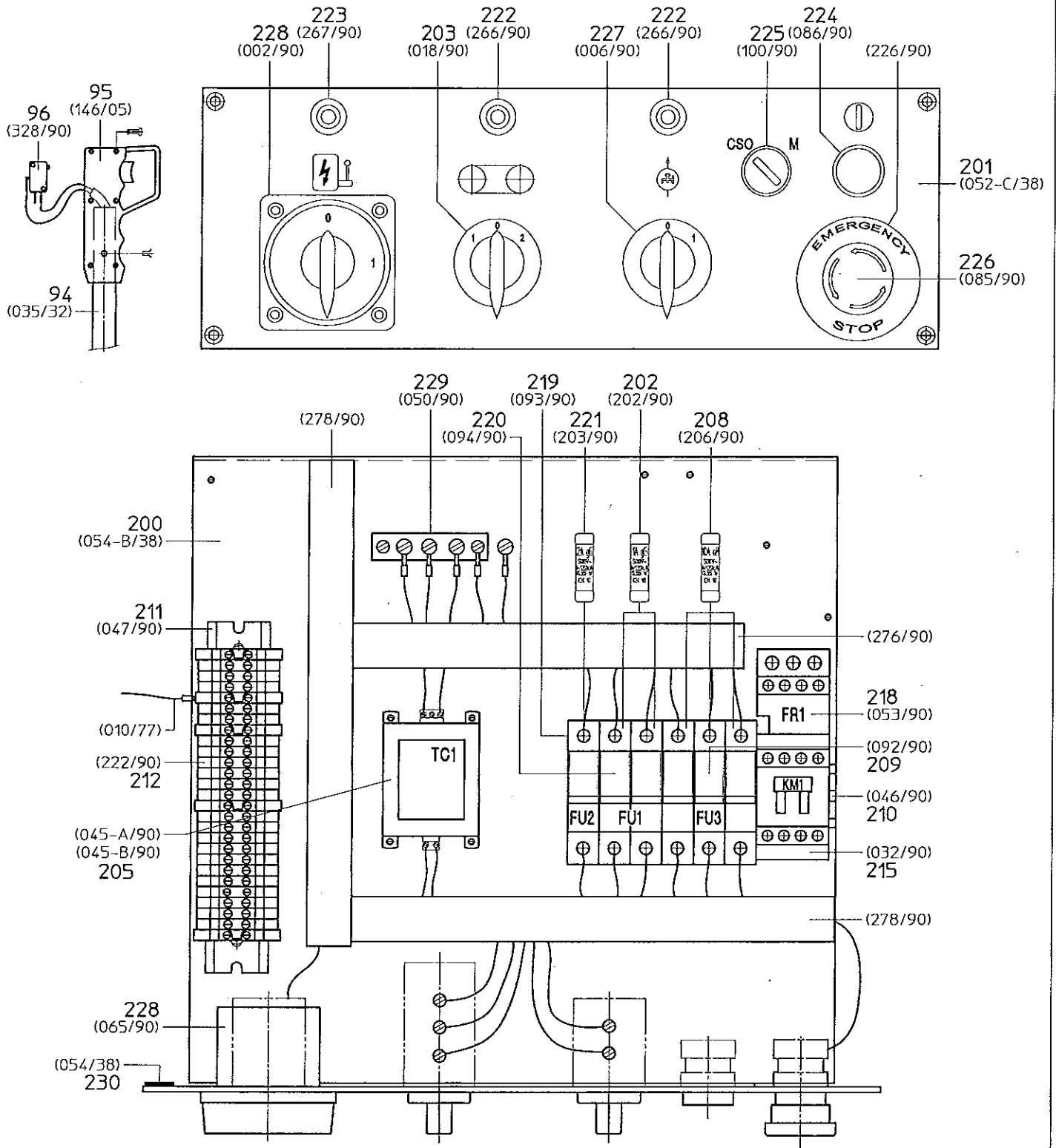






PANNELLO COMANDI SPECIAL 301-320-330-411 CSO/M

CONTROL PANEL SPECIAL 301-320-330-411 CSO/M





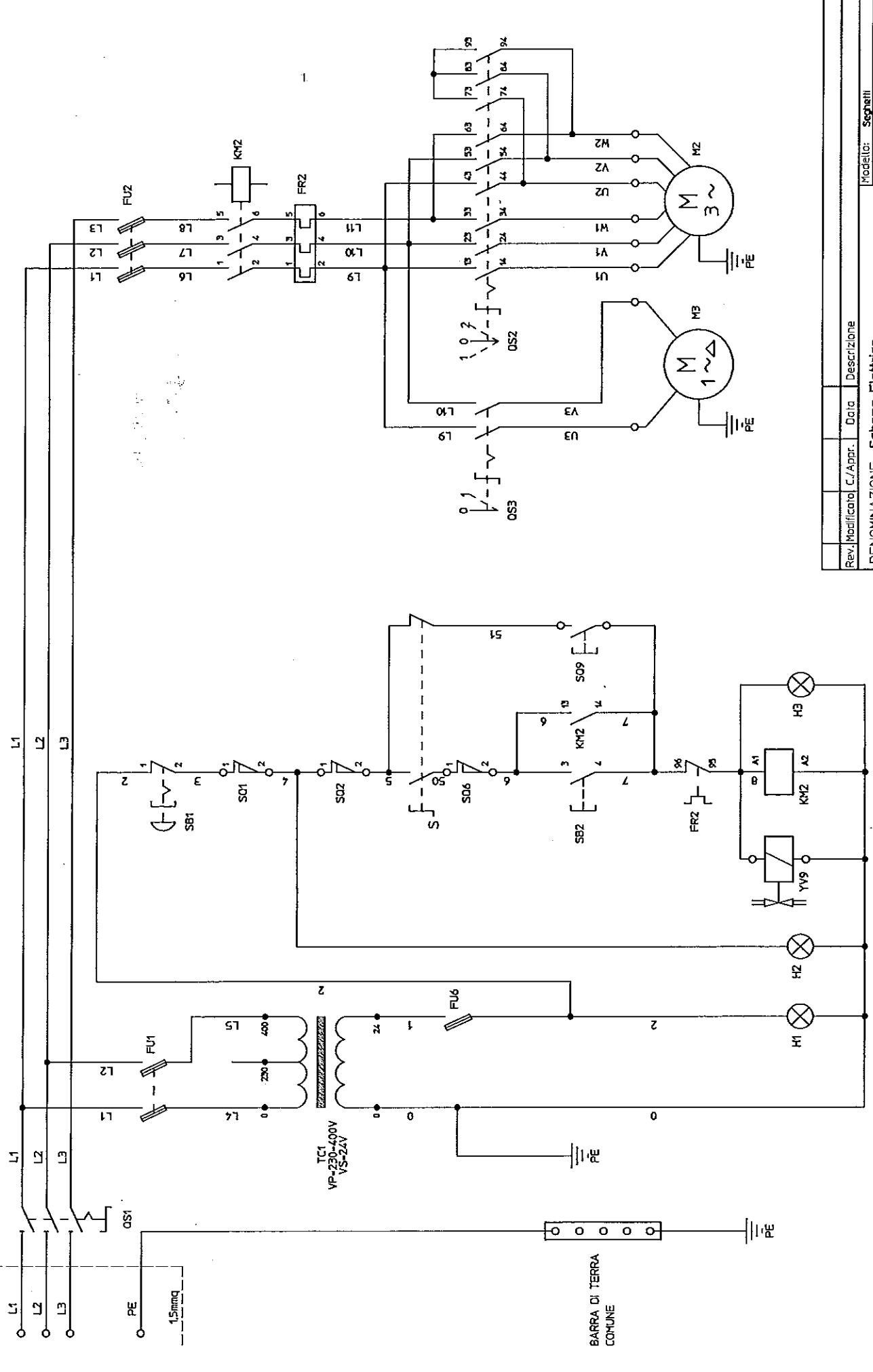
	ITALIANO	ENGLISH	DEUTSCH
FR1	RELE' TERMICO MOTORE POMPA OLIO	THERMAL RELAY OIL PUMP MOTOR	THERMISCHES RELAIS OIL PUMPE MOTOR
FR2	RELE' TERMICO MOTORE LAMA	THERMAL RELAY BLADE MOTOR	THERMISCHES RELAIS SÄGEBLATTMOTOR
FR3	RELE' TERMICO MOTORE REFRIGERANTE		
FR5	RELE' TERMICO MOTORE GUIDA PEZZO	THERMAL RELAY GUIDA-PIECE MOTOR	
FU1	FUSIBILI PROTEZIONE TRASFORMATORE	FUSE TRANSFORMER PROTECTION	SICHERUNG TRAF0 SCHUTZ
FU2	FUSIBILI PROTEZIONE MOTORI	FUSE MOTOR PROTECTION	SICHERUNG MOTOR SCHUTZ
FU3	FUSIBILI PROTEZIONE POMPA REFRIGERANTE	FUSE COOLANT PUMP PROTECTION	SICHERUNG KÜHLMITTELPOMPE SCHUTZ
FU4	FUSIBILI PROTEZIONE ALIMENTATORE	FUSE FEEDER PROTECTION	SICHERUNG ZUFÜHRER SCHUTZ
FU5	FUSIBILI PROTEZIONE 24 V dc	FUSE 24 V dc PROTECTION	SICHERUNG 24 V dc SCHUTZ
FU6	FUSIBILI PROTEZIONE 24 V ac	FUSE 24 V ac PROTECTION	SICHERUNG 24 V ac SCHUTZ
H1	SPIA PRESENZA LINEA	SPY LINE PRESENCE	LINE PRÄSENZ LAMPE
H2	SPIA LAMA IN TENSIONE	SPY BLADE IN TENSION	BLATT TENSION LAMPE
H3	SPIA START CICLO	SPY CYCLE START	ZYKLUS START LAMPE
K	TELERUTTORE TERMORESISTENZA	THERMO-RESISTANCE CONTROL SWITCH	
KM1	TELERUTTORE MOTORE POMPA OLIO	OIL PUMP MOTOR REMOTE CONTROL SWITCH	KONTAKTGEBER ZENTRALHYDRAULIK MOTOR
KM2	TELERUTTORE MOTORE LAMA	BLADE MOTOR REMOTE CONTROL SWITCH	KONTAKTGEBER SÄGEBLATTMOTOR
KM3	TELERUTTORE POMPA REFRIGERANTE	COOLANT PUMP REMOTE CONTROL SWITCH	KONTAKTGEBER KÜHLMITTELPUMPE
KM5	TELERUTTORE MOTORE GUIDA PEZZO	THERMAL RELAY GUIDA-PIECE MOTOR CONTROL SWITCH	
M1	MOTORE POMPA OLIO	OIL PUMP MOTOR	ZENTRALHYDRAULIKMOTOR
M2	MOTORE LAMA	BLADE MOTOR	SÄGEBLATTMOTOR
M3	MOTORE POMPA REFRIGERANTE	COOLANT PUMP MOTOR	KÜHLMITTELPUMPE MOTOR
M4	MOTORE ESTRATTORE TRUCIOLI	CHIP EXTRACTOR MOTOR	SPAENEAUSSASSVORRICHTUNG MOTOR
M5	MOTORE ROTAZIONE TESTA		
M50	MOTORE GUIDA PEZZO	GUIDA-PIECE MOTOR	
P1	POTENZIOMETRO POSIZIONAMENTO LAMA	BLADE POSITIONING POTENTIOMETER	SÄGEBLATT-STENUNG POTENZIOMETER
P2	POTENZIOMETRO VELOCITA' LAMA	BLADE SPEED POTENTIOMETER	SÄGEBLATT-GESCHWINDIGKEIT POTENZIOMETER
QS1	INTERRUTTORE GENERALE	MAIN ON / OFF SWITCH	HAUPTSCHALTER
QS2	INTERRUTTORE / COMMUTATORE DI VELOCITA'	SWITCH / SPEED CHANGE OVERSWITCH	SCHALTER / GESCHWINDIGKEIT UMSCHALTER
QS3	INTERRUTTORE POMPA REFRIGERANTE	COOLANT PUMP SWITCH	KÜHLMITTELPUMPE SCHALTER
R	RELE' COMANDO MARCIA ROTAZIONE LAMA	ROTATING BLADE COMMAND RELAY	SÄGEBLATT UMDREHUNG POTENZIOMETER
R1	RELE' COMANDO TELERUTTORE POMPA OLIO	OIL PUMP REMOTE CONTROL SWITCH COMMAND RELAY	RELAIS OIL PUMPE FERNSCHALTER
R2	RELE' COMANDO TELERUTTORE LAMA	BLADE REMOTE CONTROL SWITCH COMMAND RELAY	RELAIS BLATT FERNSCHALTER
R5	RELE' COMANDO MICROLUBRIFICAZIONE	MICROLUBRICATION COMMAND RELAY	
RX	RELE' COMANDO TERMOSTATO	THERMOSTAT COMMAND RELAY	
S	SELETTORE FUNZIONE	FUNCTION SELECTOR	FUNKTION WÄHLER
SB1	PULSANTE DI ARRESTO EMERGENZA	EMERGENCY PUSH BUTTON	NOT AUS TASTER
SB2	PULSANTE START CICLO	CYCLE START BUTTON	ZYKLUS START SCHALTER
SB3	PULSANTE DI RESET	RESET BUTTON	
SB4	PULSANTE CHIUSURA MORSA	LOCK VICE BUTTON	SPANNSTOCK SCHLIEßEN SCHALTER



SB5	PULSANTE APERTURA MORSA	OPEN VICE BUTTON	SPANNSTOCK ÖFFNUNG SCHALTER
SQ1	MICROINTERRUTTORE ROTTURA LAMA	MICROSWITC BLADE FAILURE	ENDSCHALTER BLATT GEBROCHEN
SQ10	MICROINTERRUTTORE START A PEDALE	PEDAL MICROSWITCH START	PEDALS MIKROSCHALTER
SQ11	MICROINTERRUTTORE CHIUSURA MORSA A PEDALE	PEDAL VICE CLOSING MICROSWITCH	FußSCHALTER SPENNSTOCK SCHLIEßEN MIKROSCHALTER
SQ15	FINECORSO GUIDA PEZZO AVANTI	MICROSWITCH GUIDA-PIECE FORWARD	
SQ16	FINECORSO GUIDA PEZZO INDIETRO	MICROSWITCH GUIDA-PIECE BACKWARDS	
SQ18	FINECORSO SOLLEVATORE ALTO	MICROSWITCH LIFT UP POSITION	
SQ2	MICROINTERRUTTORE CARTER APERTO	MICROSWITCH PROTECTION CASE	ENDSCHALTER SCHUTZGEHÄUSE
SQ20	PRESSOSTATO CHIUSURA MORSA	VICE PRESSURE SWITCH	SPANNDRUCK TASTE
SQ3	FINECORSO CARRO AVANTI	MICROSWITCH CARRIAGE FORWARD	ENDSCHALTER WAGEN VORNE
SQ30	FINECORSO ROTAZIONE -45°		
SQ4	FINECORSO CARRO INDIETRO	MICROSWITCH CARRIAGE BACK	ENDSCHALTER WAGEN ZURÜCK
SQ5	FINECORSO TESTA ALTA	MICROSWITCH HEAD / BOW UP	ENDSCHALTER BÜGEL NACH OBEN
SQ6	FINECORSO TESTA BASSA	MICROSWITCH HEAD / BOW DOWN	ENDSCHALTER BÜGEL NACH UNTEN
SQ7	MICROINTERRUTTORE FINE MATERIALE	MICROSWITCH BAR END	ENDSCHALTER STANGENENDE
SQ70	PROSSIMITI PRESENZA PEZZO	MICROSWITCH PIECE PRESENCE	
SQ8	MICROINTERRUTTORE MANIGLIONE	MICROSWITCH HANDLE	ENDSCHALTER GRIFF
SQ9	MICROINTERRUTTORE START MANUALE	MICROSWITCH MANUAL START	ENDSCHALTER MANUELL START
T	TERMOSTATO	THERMOSTAT	THERMOSTAT
TC1	TRASFORMATORE	TRANSFORMER	TRANSFORMATOR
TR	TERMORESISTENZA	THERMO-RESISTANCE	THERMO-WIDERSTAND
YV1	ELETTROVALVOLA CARRO AVANTI LENTO	CARRIAGE SLOW FORWARD MOTION SOLENOID VALVE	ELEKTROVENTIL WAGEN LANGSAM VORNE
YV10	ELETTROVALVOLA SBLOCCAGGIO MANUALE	MANUAL UNLOCKING SOLENOID VALVE	ELEKTROVENTIL MANUELL AUFHEBUNG
YV11	ELETTROVALVOLA DETENSIONAMENTO LAMA	UNTIGHTNING BLADE SOLENOID VALVE	SAEGBLATT ENTSPANNUNG MAGNETVENTIL
YV12	ELETTROVALVOLA TENSIONAMENTO LAMA	TIGHTNING BLADE SOLENOID VALVE	SAEGBLATT SPANNUNG MAGNETVENTIL
YV15	ELETTROVALVOLA SOLLEVATORE CARICATORE	LOADER LIFT SOLENOID VALVE	
YV16	ELETTROVALVOLA MORSA CARICATORE	LOADER VICE SOLENOID VALVE	
YV2	ELETTROVALVOLA CARRO INDIETRO LENTO	CARRIAGE SLOW BACK MOTION SOLENOID VALVE	ELEKTROVENTIL WAGEN LANGSAM ZURÜCK
YV20	SBLOCCAGGIO ROTAZIONE		
YV3	ELETTROVALVOLA MORSA MOBILE	MOVABLE VICE SOLENOID VALVE	ELEKTROVENTIL BEWEGLICHER SPANNSTOCK
YV4	ELETTROVALVOLA SALITA	UP STROKE SOLENOID VALVE	ELEKTROVENTIL ANSTIEG
YV5	ELETTROVALVOLA DISCESA	DOWN STROKE SOLENOID VALVE	ELEKTROVENTIL ABSTIEG
YV50	ELETTROVALVOLA DISCESA LAMA RAPIDA	QUICK LOWERING SOLENOID VALVE	SCHNELL ELEKTROVENTIL ABSTIEG
YV6	ELETTROVALVOLA APERTURA MORSA FISSA	FIXED VICE OPENING SOLENOID VALVE	ELEKTROVENTIL FESTER SPANNSTOCK ÖFFNUNG
YV60	ELETTROVALVOLA CHIUSURA MORSA FISSA	FIXED VICE CLOSING SOLENOID VALVE	ELEKTROVENTIL FESTER SPANNSTOCK SCHLIESSEN
YV7	ELETTROVALVOLA CARRO AVANTI	CARRIAGE FORWARD SOLENOID VALVE	ELEKTROVENTIL WAGEN VORNE
YV70	ELETTROVALVOLA SPAZZOLA	BRUSH SOLENOID VALVE	BUERSTE MAGNETVENTIL
YV8	ELETTROVALVOLA CARRO INDIETRO	CARRIAGE BACK SOLENOID VALVE	ELEKTROVENTIL WAGEN ZURÜCK
YV9	ELETTROVALVOLA BLOCCO	MANUAL LOCKING SOLENOID VALVE	ELEKTROVENTIL BLOCK
YV90	ELETTROVALVOLA MICROLUBRIFICAZIONE	MICROLUBRICATION SOLENOID	

0 1 2 3 4 5 6 7 8 9

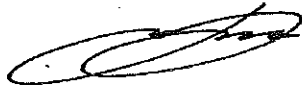
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Rev. Modificata	C./Appr.	Data	Descrizione
DENOMINAZIONE: Schema Elettrico			
Data	45/04/2011		
Firma	Paolo Mandin		
Contr./Appr.			
Modello: Seghetti			
Macchina: Special CSO/M			
N° Schema 071/S			
Revisione	1	di	1
Foglio	1		





CONTROLLATO IL:	13/01/2015
DA:	
REV.:	0