

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 MS

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

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

2023







**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](http://www.macc.it) E-mail: [info@macc.it](mailto: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:

**SEGATRICE 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 MS**

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

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

**2023**

- E' CONFORME ALLA DIRETTIVA MACCHINE 2006/42/CE, ALLA DIRETTIVA COMPATIBILITA' ELETTROMAGNETICA 2014/30/UE ED ALLA DIRETTIVA BASSA TENSIONE 2014/35/UE.
- IS IN COMPLIANCE WITH THE 2006/42/EEC MACHINERY DIRECTIVE, 2014/30/UE DIRECTIVE ON ELECTROMAGNETIC COMPATIBILITY, 2014/35/UE LOW VOLTAGE DIRECTIVE.
- DEN NORMEN BEZÜGLICH DER MASCHINEN-RICHTLINIE 2006/42/EWG, 2014/30/EWG RICHTLINIE ZUR ELEKTROMAGNETISCHEN KOMPATIBILITÄT, 2014/35/EWG RICHTLINIE FÜR NIEDERSpannung ENTSPRICHT.
- EST CONFORME A LA DIRECTIVE MACHINES 2006/42/CEE, 2014/30/CEE DIRECTIVE SUR LA COMPATIBILITÉ ÉLECTROMAGNÉTIQUE, 2014/35/CEE DIRECTIVE BASSE TENSION.
- HA SIDO FABRICADA CONFORME A LA DIRECTIVA MÁQUINAS 2006/42/CEE, 2014/30/CEE DIRECTIVA COMPATIBILIDAD ELECTROMAGNÉTICA, 2014/35/CEE DIRECTIVA BAJA TENSION.
- ОТВЕЧАЕТ ТРЕБОВАНИЯМ ДИРЕКТИВЫ ПО МАШИНАМ 2006/42/СЕ, ДИРЕКТИВЫ ОБ ЭЛЕКТРОМАГНИТНОЙ СОВМЕСТИМОСТИ 2014/30/СЕ И ДИРЕКТИВЫ О НИЗКОМ НАПРЯЖЕНИИ 2014/35/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

**Macc Costruzioni Meccaniche s.r.l.**

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,**

**2023**





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





**SISTEMA DI MICROLUBRIFICAZIONE:** SE INSTALLATO SULLA MACCHINA, È OBBLIGATORIO L'USO DI MASCHERINA PROTETTIVA DELLE VIE AEREE. SI CONSIGLIA DI MANTENERE AREATO IL LOCALE.

**MICRO-LUBRICATION SYSTEM:** IF INSTALLED ON THE MACHINE, THE USE OF **PPE** (AIRWAYS PROTECTION MASK) IS NECESSARY. KEEP THE PLACE AERATED.

**MIKRODOSIERGERÄT:** FÜR MASCHINEN MIT MIKRODOSIERGERÄT IST ES STRIKT ERFORDERLICH EINE ATEMMASKE ZUM SCHUTZ DER ATEMWEGE ZU TRAGEN. BITTE DAS GERÄT NUR IN GUT BELÜFTETEN RÄUMEN ANWENDEN.

**SYSTÈME DE MICRO-LUBRIFICATION:** SI LE SYSTÈME EST INSTALLÉ SUR LA MACHINE, IL EST IMPÉRATIF DE PORTER UN MASQUE DE PROTECTION POUR PROTÉGER LES VOIES RESPIRATOIRES. LES LOCAUX DOIVENT ÉGALEMENT ÊTRE VENTILÉS.

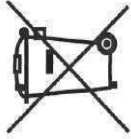
**SISTEMA DE MICROLUBRICACIÓN:** SI ESTÁ INSTALADO EN LA MÁQUINA, ES OBLIGATORIO EL USO DE UNA MÁSCARA PROTECTORA DE LAS VÍAS RESPIRATORIAS. ES ACONSEJABLE MANTENER LA SALA VENTILADA.

**SISTEMA DE MICRO-LUBRIFICAÇÃO:** SE INSTALADO NA MÁQUINA, O USO DE UMA MÁSCARA PROTETORA DAS VIAS AÉREAS É OBRIGATÓRIO. É ACONSELHÁVEL MANTER O LOCAL VENTILADO.

**СИСТЕМА МИКРОСМАЗКИ:** ЕСЛИ СИСТЕМА УСТАНОВЛЕНА, ОБЯЗАТЕЛЬНО ИСПОЛЬЗОВАТЬ ЗАЩИТНУЮ МАСКУ И ПРОВЕТРИВАТЬ ПОМЕЩЕНИЕ.



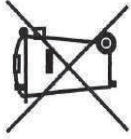




**Felislegessé vált elektronikus és elektronikus készülékek hulladékát való elvitelvétele**  
**(Használatba az Európai Unió és egyéb európai országok szelektív hulladékgyűjtési rendszerében)**

Ez a szimbólum a készüléken vagy a csomagolásán azt jelzi, hogy a terméket ne kezelje háztartási hulladékként. Kérjük, hogy az elektronikus és elektronikai hulladék gyűjtésére kijelölt gyűjtőhelyen adja le. A felislegessé vált termékeknek helyes kezelésével segít megelőzni a környezeti és az emberi egészség károsodását, mely bekövetkezhetne, ha nem követi a hulladék kezelési elveket. Az anyagok újrahasznosítása segít a természeti erőforrások megőrzésében. A termék újrahasznosítása érdekében további információkat forduljon a kiskereskedőhöz, a helyi hulladékgyűjtő szolgáltatóhoz vagy ahhoz az üzlethez, ahol a terméket megvásárolta.

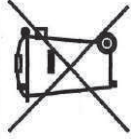
**Cesky**



**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 nemělo být nakládáno jako s běžným odpadem z domácnosti. Místo toho by měl být odděleno do zvláštního místa, určeného k recyklaci elektronických výrobků a zařízení. Dodržení této instrukce zabráně negativnímu dopadu na životní prostředí a zdraví lidí, které naopak může být ohroženo nesprávným nakládáním s výrobkem při jeho likvidaci. Recyklováním materiálů, z nichž je vyroben, pomůžete zachovat přírodní zdroje. Pro získání dalších informací o recyklaci tohoto výrobku kontaktujte, prosím, místní orgány státní správy, místní firmu zabezpečující likvidaci a sběr odpadu nebo prodejnu, v níž jste výrobek zakoupili.

**Slovensky**



**Likvidácia starých 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 je potrebné ho doručiť do vyhradeného zberného miesta na recykláciu elektrozariadení. Tým, že zaisíte správnu zneškodnenie, pomôžete zabrániť potenciálnemu negatívnemu vplyvu na životné prostredie a ľudské zdravie, ktoré by v opačnom prípade hrozil pri nesprávnom nakládání s týmto výrobkom. Recyklácia materiálov pomôha uchovávať prírodné zdroje. Pre získanie ďalších podrobných informácií o recyklácii tohoto výrobku kontaktujte prosím váš miestny alebo obecný úrad, miestnu službu pre zber domového odpadu alebo predajňu, kde ste výrobok zakúpili.

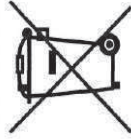
**Türkçe**



**Eski Elektrikli ve Elektronik Ekipmanların Atılması (Avrupa Birliği'nde ve aynı toplama sistemlerine sahip diğer Avrupa ülkelerinde uygulanır)**

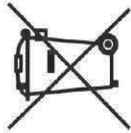
Ürün veya ambalajı üzerinde bulunan bu sembol, bu ürünün bir ev atığı olarak muamele görmemesi gerektirir. Bunu yerine, elektrikli ve elektronik ekipmanların geri dönüşümü için mevcut olan uygun toplama noktasına teslim edilmelidir. Bu ürünün doğru şekilde atılmasını sağlayarak, bu ürüne yanlış müdahale edilmemesi konusunda ortaya çıkabilecek ve çevre ile insan sağlığı üzerindeki olumsuz etkilerden korunulmasını önlemesine yardımcı olursunuz. Malzemelerin geri dönüşümü, doğal kaynakları korumamıza yardımcı olacaktır. Bu ürünün geri dönüşümüne ilgili daha fazla bilgi için, lütfen sehirinizde bulunan yerel ofis, evsel atıklar toplama servisimizle veya bu ürünü satın aldığınız mağazayla temasa geçin.

**Slovensko**



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

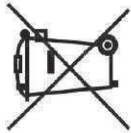
Če se na izdelku ali na njegovih embalaži nahaja ta simbol, pomeni, da z izdelkom ne smete ravnati enako kot z drugimi gospodinjstvenimi odpadki. Morate ga oddati na ustrezno zbirno mesto za recikliranje električne in elektronske opreme. S pravilno oddajo tega izdelka boste pomagali preprečiti negativne posledice na okolje in zdravje ljudi, do katerih bi prišlo v primeru neustreznega ravnanja ob odstranitvi tega izdelka. Recikliranje materiala bo pripomoglo k ohranjanju naravnih virov. Podrobnejše informacije o recikliranju tega izdelka lahko dobite pri lokalni mestni upravi, službi oddajanja gospodinjstvenih odpadkov ali v trgovini, kjer ste izdelek kupili. Odpadno električno in elektronsko opremo lahko oddate brezplačno tudi distributorju neposredno ob dobavi električne oz. elektronske opreme.



**Утилизация электрического и электронного оборудования (директива применяется в странах Евросоюза и других европейских странах, где действуют системы 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. Неправильная утилизация данного изделия может привести к потенциально негативному влиянию на окружающую среду и здоровье людей, поэтому для предотвращения подобных последствий необходимо выполнить специальные требования по утилизации этого изделия. Переработка данных материалов поможет сохранить природные ресурсы. Для получения более подробной информации о переработке этого изделия обратитесь в местные органы городского управления, службу сбора бытовых отходов или в магазин, где было приобретено изделие.

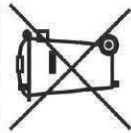
**Suomi**



**Käytöstä poistettujen sähkö- ja elektroniikkalaitteiden hävitys (Euroopan Unioni ja muiden Euroopan maiden keräysjärjestelmät)**

Symboli, joka on merkitty Tuotteeseen tai sen pakkaukseen, osoittaa, että tätä tuotetta ei saa käsitellä taloustehteenä. Tuote on sen sijaan luovutettava sopivaan sähkö- ja elektroniikkalaitteiden kierrätyskeskitteluohjelmaan. Tuotteen väärin käsittely voi johtaa ympäristön ja ihmisten terveyden vaarantamiseen. Väärin käytetty tuote voi vaikuttaa negatiivisesti ympäristöön ja terveyteen kohdistuvat haittavaikutukset, joita voi aiheuttaa muussa tapauksessa tämän tuotteen epäsäännöllisestä jätehoituksesta. Materiaalien kierrätyksessä luonnonvaroja. Tarkempia tietoja tämän tuotteen kierrättämisestä saa paikallisesta kunnantalonistosta.

**Dansk**



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

Hvis 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, så det elektriske og elektroniske udstyr kan blive genbrugt. Når du bortskaffer produktet korrekt, hjælper du med at forhindre de mulige negative påvirkninger af miljøet eller sundheden, der kan opstå, hvis produktet bortskaffes på uopassende vis. Genbrug af materialer er med at bevare naturlige ressourcer. Yderligere oplysninger om genbrug af produktet fås på kommunen, på genbrugscentralen eller i den butik, hvor du købte produktet.

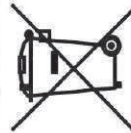
**Português**



**Tratamento 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 este não deve ser tratado como resíduo urbano indiferenciado. Deve sim ser colocado num ponto de recolha, destinado a resíduos de equipamentos eléctricos e electrónicos. Asegurando-se que este produto é correctamente depositado, irá prevenir potenciais consequências negativas para o ambiente bem como para a saúde, que de outra forma poderiam ocorrer pelo mau manuseamento destes produtos. A reciclagem dos materiais contribui para a conservação dos recursos naturais. Para obter informação mais detalhada sobre a reciclagem deste produto, por favor contacte o município onde reside, os serviços de recolha de resíduos da sua área ou a loja onde adquiriu o produto.

**Ελληνικά**



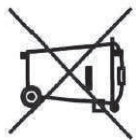
**Αποκοπή Παλαιού Ηλεκτρικού & Ηλεκτρονικού Εξοπλισμού(από τη στιγμή που εφαρμόζεται Ένωση και άλλες Ευρωπαϊκές χώρες με ξεχωριστά συστήματα περισυλλογής)**

Το σύμβολο αυτό επάνω στο προϊόν ή στη συσκευασία του σημαίνει, ότι το προϊόν δεν πρέπει να πεταχτεί μαζί με τα οικιακά απορρίμματα αλλά πρέπει να παραδοθεί σε ένα κατάλληλο σημείο συλλογής ηλεκτρονικού και ηλεκτρικού υλικού προς ανακύκλωση. Με το να βεβαιωθείτε ότι το προϊόν πετάγεται σωστά, βοηθάτε στην πρόληψη πιθανών αρνητικών επιπτώσεων στο περιβάλλον και την υγεία. Η ανακύκλωση των υλικών θα βοηθήσει στην εξοικονόμηση φυσικών πόρων. Για περισσότερες πληροφορίες σχετικά με την ανακύκλωση αυτού του προϊόντος, παρακαλούμε επικοινωνήστε με τις υπηρεσίες καθαρότητας του δήμου σας ή το κατάστημα όπου αγοράσατε το προϊόν.

English

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

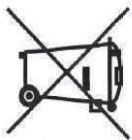
This symbol on the product or on its packaging indicates that this product shall not be treated as household waste. Instead it shall be handed over to the applicable collection point for the recycling of electrical and electronic equipment. By ensuring this product is disposed of correctly, you will 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)**

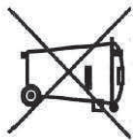
Ce symbole, apposé sur le produit ou sur son emballage, indique que ce produit ne doit pas être traité avec les déchets ménagers. Il doit être remis à un point de collecte approprié pour le recyclage des équipements électriques et électroniques. En s'assurant que ce produit est bien mis au rebut de manière appropriée, vous aidez à prévenir les conséquences négatives potentielles pour l'environnement et la santé humaine. 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 Sammelsystem für diese Geräte)**

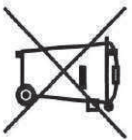
Das Symbol auf dem Produkt oder seiner Verpackung weist darauf hin, dass dieses Produkt nicht als normaler Haushaltsabfall zu behandeln ist, sondern an einer Annahmestelle für das Recycling von elektrischen und elektronischen Geräten abgegeben werden muss. Durch Ihren Beitrag zum korrekten Entsorgen dieses Produkts 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 Produkts erhalten Sie von Ihrer Gemeinde, den kommunalen Entsorgungsbetrieben oder dem Geschäft, in dem Sie das Produkt gekauft haben.



Español

**Tratamiento 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)**

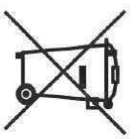
Este símbolo en su equipo o su embalaje indica que el presente producto no puede ser tratado como residuos domésticos normales, sino que deben entregarse en el correspondiente punto de recogida de equipos eléctricos y electrónicos. Asegurándose de que este producto es desechado correctamente, Ud. está ayudando a prevenir las consecuencias negativas para el medio ambiente y la salud humana que podrían 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 su 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 ophaalsystemen)**

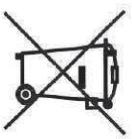
Het symbool op het product of op de verpakking wijst erop dat dit product niet als huishoudafval mag worden behandeld. Het moet echter naar een plaats worden gebracht waar elektrische en elektronische apparatuur wordt gerecycled. Als u ervoor zorgt dat dit product op de correcte manier wordt verwerkt, voorkomt u mogelijk voor mens en milieu negatieve gevolgen die zich zouden kunnen voordoen in geval van verkeerde afvalbehandeling. De recycling van materialen draagt bij tot het vrijwaren 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

**Omhändertagande av gamla elektriska och elektroniska produkter (Användbar i den Europeiska Unionen och andra Europeiska länder med separata insamlingsystem)**

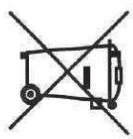
Symbolen på produkten eller emballaget anger att produkten inte får hanteras som hushållsavfall. Den skall i stället lämnas in på uppsamlingsplats för återvinning av el- och elektronikkomponenter. Genom att säkerställa att produkten hanteras på rätt sätt bidrar du till att förebygga eventuellt negativa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



Italiano

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

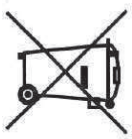
Questo simbolo sul prodotto o sulla confezione indica che il prodotto non deve essere considerato come un normale rifiuto domestico, ma deve invece essere consegnato ad un punto di raccolta appropriato per il riciclo di apparecchi elettrici ed elettronici. Assicurandosi che questo prodotto sia smaltito correttamente, voi contribuite 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.



Język polski

**Porzucenie się Zużytego Sprzętu (Stosowane w krajach Unii Europejskiej i w pozostałych krajach europejskich mających własne systemy zbiorcze)**

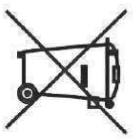
Taki symbol na produkcie lub jego opakowaniu oznacza, że produkt nie może być traktowany jako odpad domowy, lecz powinno się go dostarczyć do odpowiedniego punktu zbiórki sprzętu elektrycznego i elektronicznego, w celu recyklingu. Poprzez upewnienie się, że dyspozycja dotyczyca produktu jest poprawna, zapobiega się potencjalnym negatywnym wpływom na środowisko oraz zdrowie ludzi, jakie mogłyby wystąpić w przypadku niewłaściwego postępowania. Recykling materiałów pomoże w ochronie naturalnych źródeł. W celu uzyskania bardziej szczegółowych informacji na temat recyklingu tego produktu, należy skontaktować się z naszymi lokalnymi biurami, ze służbami oczyszczania śmiecia lub ze sklepem, w którym zakupiony został ten produkt.



Norsk

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

Dette symbolet på produktet eller innpakningen indikerer at dette produktet ikke må håndteres som husholdningsavfall. I stedet skal det leveres inn til spesielt innsamlingspunkt 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 avfallshåndtering av dette produktet. Gjenvinning av disse materialene vil hjelpe til med å ta vare på de naturressurser. For mer informasjon om gjenvinning av dette produktet, kan du kontakte lokale myndigheter.



# 1. INTRODUCTION

This operation instruction manual conforms to the requirements of the Machine Directive 2006/42/EEC . In this light , special attention has been given to safety aspects and accident prevention in the work-place 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 :

- Date and number of purchasing document
- Machine model
- Serial number
- 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. CONTENTS

### 3.1 INDEX OF CHAPTERS

- |               |  |
|---------------|--|
| <b>Cap 1</b>  | Introduction   |
| <b>Cap 2</b>  | Information about maintenance assistance   |
| <b>Cap 3</b>  | Index of chapters , drawings , diagrams and tables   |
| <b>Cap 4</b>  | Description of the machine<br>Safety standards complied with during the design and construction of the machine<br>Description of the machine and its components<br>Intended and unsuitable uses of the machine                 |
| <b>Cap 5</b>  | Main technical data  |
| <b>Cap 6</b>  | Handling and transportation  |
| <b>Cap 7</b>  | Installation   |
| <b>Cap 8</b>  | Start up and operation<br>Devices and their location<br>Tools supplied<br>Operation<br>Special safety checks<br>General safety rules<br>Measures to prevent residual risks<br>Safety , Guidance , Notice Labels on the Machine |
| <b>Cap 9</b>  | Maintenance and repairs<br>General safety measures<br>Routine checks and maintenance<br>Description of routine maintenance<br>Possible inconveniences  |
| <b>Cap 10</b> | Information regarding environmental noise  |
| <b>Cap 11</b> | Laying off - Demolition  |
| <b>Cap 12</b> | 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	08.03.00
Drawings	Handling and transportation- Installation plan	2	6 - 7A/7B
Drawings	Blade guides - Machine assembly	3	7C - 8.3 - 9.3
Drawings	Assembly : bench and rotation pin / bench and bar stop	4	8.3
Drawings	Tensioning and idle pulley Reduction unit and motor pulley	5	7C
Drawings	Spring tensioning adjustment – Control panel	6	7F
Diagram	Hydraulic 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 .**

The following Standards apply :

- **EN ISO 12100** 2010 Safety of machinery . Basic concepts , general principles for design , basic methodology .
- **EN ISO 16093** 2017 Safety of machinery . Basic concepts and general principles for design . Specifications and technical principles .
- **EN ISO 13850** 2015 Safety of machinery . Emergency stop devices , functional aspects - design principles .
- **EN ISO 4413-13** 2012 Safety requirements related to systems and components for hydraulic and pneumatic transmissions .
- **EN 1037** 2008 Isolation and energy dissipation . Prevention of unexpected start-up .
- **EN 14119** 2013 Interlocking devices associated with guards — Principles for design and selection .
- **EN 60204-1** 2018 Safety of machinery . Electrical equipment of machines . General requirements .
- **EN 13857** 2008 Safety distances to prevent danger zones being reached by the upper limbs .

- **2014/30/UE Directive on electromagnetic compatibility .**

The following Standards apply :

- **EN 55014-1** 2019 Electromagnetic compatibility - Requirements for household appliances , electric tools and similar apparatus .
- **EN 61000-3-2** 2018 Electromagnetic compatibility – Limits for harmonic current emissions .
- **EN 61000-3-11** 2017 Electromagnetic compatibility ( EMC ) – Limitation of voltage changes , voltage fluctuations and flicker in public low-voltage supply systems .
- **EN 55032** 2015 Electromagnetic compatibility of multimedia equipment - Emission requirements .
- **EN 61000-4-2** 2008 Electromagnetic compatibility ( EMC ) Part 4 : Testing and measurement techniques Section 2 : Electrostatic discharge immunity test . EMC Base Publication .
- **EN 61000-4-4** 2012 Electromagnetic compatibility ( EMC ) Part 4-4 : Testing and measurement techniques - Electrical fast transient/burst immunity test .
- **EN 61000-4-6** 2013 Electromagnetic compatibility ( EMC ) Part 4 : Testing and measurement techniques . Section 6 : Immunity to conducted disturbances , induced by radio-frequency fields .

- **2014/35/UE Low Voltage Directive .**

Directive 2003/11/EC 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 ) .

### 4.2 DESCRIPTION OF THE MACHINE AND ITS COMPONENTS

The **SPECIAL 411 M/S** 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 support bow is made in cast iron , with a suitable dimension to provide the necessary stiffness and precision to the cutting unit . The vice unit is made of cast-iron and clamps the material to be cut securely . The numerical control device allows the required length to be preset and provides high repeated-cut precision .

The coolant pump is fitted to the machine base .

A electromechanical device with pressure switch for band tightening , prevents the band from advancing in the event of insufficient tension and moreover allows ideal operation conditions to be restored at any moment . The main switch is located on the front panel . 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 and rod support .

### 4.3 INTENDED AND UNSUITABLE USES OF THE MACHINE

The **SPECIAL 411 M/S** 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'
Control unit motor	0.55 kW
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
Clamping force	3920 N (400 kg)
Coolant tank capacity	15 litri ~
Machine weight	~5640 N ( 575 kg )

## 6. HANDLING AND TRANSPORTATION

For safe handling and transportation use a lift truck for movement indoors also indicated on the ( DRAW.3 ENCL.2 ) . Keep the machine in its normal position and avoid turning it upside down . All the necessary measures should be taken to stop the machine from tipping over . If the machine is moved from its position , use a forklift as shown in the photograph below . To carry out this operation , remove the guard situated on the bottom at the front of the machine base by taking out the two screws indicated by the arrows . Insert the forks of the lifter and move the machine . Then re-fit the guard .

**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 107 ( 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 . Refer to drawing 4 Installation Plan SPECIAL 411 M/S All.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 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 emulsifiable oil obtained from a mixture of water and WLADOIL EMULSOL SGA/NF oil with a percentage of 5-7%

#### **F. SPRING TENSIONING ADJUSTMENT**

**Wind the spring by turning screw 49 up to 47 mm as shown in DRAW. 13 ENCL.6 .**

### **8. MACHINE START UP AND OPERATION**

#### **8.1 DEVICES AND THEIR LOCATION**

( The location of the devices described is shown on the SPECIAL 411 M/S installation plan ENCL.2 ) .

Cod. 203 CHANGE OVER SWITCH  
Cod. 226 EMERGENCY BUTTON  
Cod. 16 LOCKING VICE  
Cod. 116 BAR STOP

#### **8.2 TOOLS SUPPLIED**

no. 1 hexagonal bar wrench ( 3 )  
no. 1 hexagonal bar wrench ( 5 )  
no. 1 hexagonal bar wrench ( 6 )  
no. 1 hexagonal bar wrench ( 8 )  
no. 1 hexagonal bar wrench ( 10 )

#### **8.3 OPERATION**

##### **CHECKS TO CARRY OUT BEFORE EACH CUT**

- A. Tension the band by rotating the hand wheel 28 to the end of stroke ( mechanic stop ) , ( 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 rotating plate are locked by means of the hand wheel 59 ( DRAW.8 ENCL. 3 ) .
- D. With the motor off , lower the bow and check that at the end of stroke , the band does not touch the rotating plate 13 . If the band does touch , adjust the screw located on the rotating plate ( DRAW.8 ENCL.3 ) . By adjusting screw , 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 .

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

- 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 64 ( DRAW.9 ENCL.6 ) with handle 128 and move it near the vice jaw so that it doesn't touch it during the cutting operation , then secure it again . When carrying out this operation , make sure that the blade guide guard does not come out of the bow guard leaving a part of the blade exposed .  
Make sure the pressure gauge on the hydraulic unit indicates a pressure of about 30 bar otherwise place it on this value by the controller of the unit itself .

##### **CUTTING OPERATION**

- A. Before starting to cut , if the cutting inclination is not as required , correct it or change it by pulling the knob 91 and turning the rotating plate 13 until the required position is reached . If the position is not one of the normal set positions , fasten the rotating plate using the hand wheel 59 ( DRAW.8 ENCL.3 ) .
- B. Position the vice at 3-4mm from the part to be cut , using the handwheel 20 ( DRAW.10 ENCL.4 ) .
- C. SEMIAUTOMATIC cutting operation : turn on the machine using the main switch 228 and rotate the changeover switch 203 onto the required speed . The oil pump start-up is obtained by the RESET A key , press again the RESET key to bring the saw frame to the high position .  
If the machine does not perform any movement whichever button is pressed , the two phases of the line cable must be inverted this inverts the direction the oil pump motor rotates in .  
This instrument enables the top and bottom cutting limits to be programmed directly by means of the control keyboard . To memorize the top position limit , cutting starting point , bring the blade close to the material to be cut and position it at about 5mm from it using keys C and F . To memorize the position , press key D ( Start ) . Each time the key D ( Start ) is pressed , automatically the cutting start point is memorized . To memorise the bottom cutting limit , bring the blade to the desired low point using the key F and hold the button E ( Memory ) pressed until it not flashes , indicating memorization is completed .  
To perform a cut after memorising the selected top and bottom limit , start the cut cycle pressing the Start D button .  
Before performing this last operation , make sure the descent regulator 57 is closed , in order to prevent the blade from descending too quickly onto the piece to be cut .  
Position the part on a work surface . Press the button Start D to start a cut cycle . The blade starts to rotate , closes the vice and the bow starts to go down . By means of the adjuster 57 , it is possible to gradually change the descent speed until the desired one is reached .  
Once the bottom limit programmed at the beginning has been reached , the arc returns to its starting position , the blade stops and opens the vice .

To stop the cutting cycle , press the RESET key A . In order for the bow to return to its cutting start position , press RESET key A another time .

To use the coolant , key B must be on .

If the machine remains idle for more than 3 mins. , the oil pump automatically switches off . To switch it back on again , press RESET A push button .

After resolving the causes of the alarm , press key Reset A to remove the emergency from the control panel .

D. Manual cutting cycle ( optional ) :

Turn the main switch 228 and the changeover switch 203 into the desired speed . Switch on the hydraulic unit by pressing the RESET button of the keyboard MACC 8 , press again the RESET button to bring the bow at the desired up position , by means of the handwheel 20 place the vice close ( 3-4 mm ) to the material to be cut , take hold of the handle 36 located at the end of head lever and press the button to start the manual cutting mode , press the button again to start the manual cutting operation . Press the button "↑" ( UPSTROKE ) to close the vice , press the button "↓" ( DOWNSTROKE ) to open the vice .

Press RESET to set the semi-automatic cutting cycle .

To cut in series , position the bar stop 116 in correspondence of the size required . Fix it into position by using the handwheel 121 ( DRAW.10 ENCL.4 ) .

E. For cuts on the left , loosen the screw 93 move the clamp unit towards the right and re-tighten screw 93 ( DRAW.8 ENCL.3 ) .

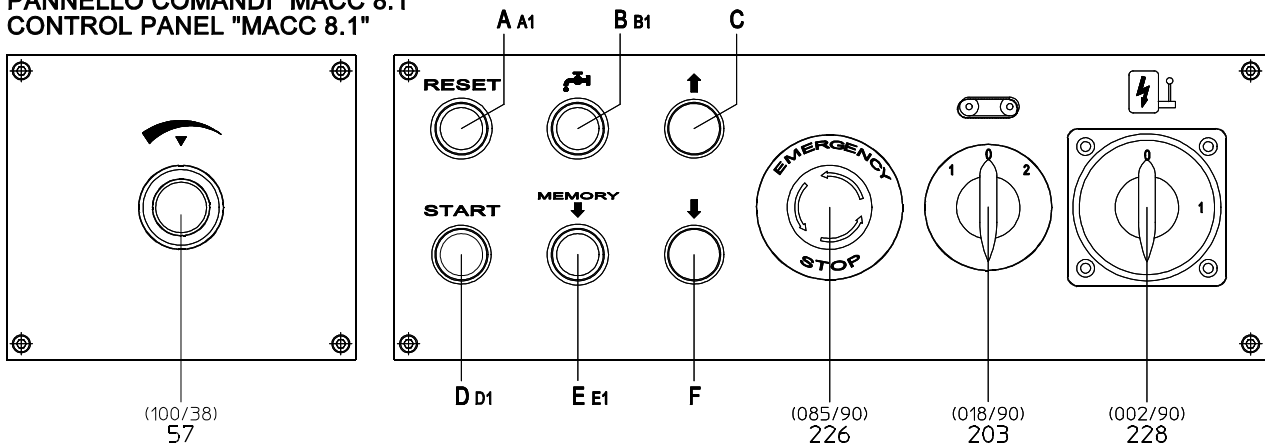
F. To replace the band , carry out the same operations used to assemble the band ( chapter 7C ) .

G. For the choice of blade see table ( DRAW. 1 ENCL.1 ) .

**H. Every time the machine is switched on , when it switches off or if the emergency push-button 160 has been pressed, set the machine to the starting position and press the RESET button to start the cycle again ( in the third case , release the emergency button first ) .**

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

PANNELLO COMANDI "MACC 8.1"  
CONTROL PANEL "MACC 8.1"



- |     |   |
|-----|---|
| A.  | RESET button                                |
| B.  | motorized cooling pump ON-OFF button        |
| C.  | bow up button                               |
| D.  | START button                                |
| E.  | bow low limit memorization button           |
| F.  | bow down button                             |
| A1. | RESET button warning light                  |
| B1. | motorized cooling pump button warning light |
| D1. | START button warning light                  |
| E1. | bow bottom limit setting key warning light  |
| 57  | Descent regulator                           |
| 203 | Change-over switch                          |
| 226 | emergency button                            |
| 228 | Main switch                                 |

#### 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. 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 .

E. 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 . Do not remove the guards .
- B. Gloves and safety glasses 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 .

### 8.7 SAFETY , GUIDANCE , NOTICE LABELS ON THE MACHINE

		MACC Costruzioni Meccaniche S.r.l. Via Lago di Albano, 10 36015 Schio (VI) ITALY Tel. +39 0445 575001-05 Fax +39 0445 575006 Web site www.macc.it	
Modello - Model	Massa - Weight (Kg)		
Matricola - Serial number	Anno - Year		
 Centralina idraulica - Hydraulic unit: <b>Eni Arnica 32</b> Scatola ingranaggi - Gearbox : <b>Eni Blasias 220</b> Punti a grasso - Grease points : <b>Eni Grease MU EP 2</b>			



•NON RIMUOVERE I DISPOSITIVI E LE PROTEZIONI DI SICUREZZA!

•BESCHERMKAPPEN EN BEVEILIGINGEN MOGEN NIET VERWIJDERD WORDEN !

•DO NOT REMOVE THE SAFETY DEVICES AND GUARDS !

•DIE SCHUTZVORRICHTUNGEN NICHT ENTFERNEN!

•NE PAS ENLEVER LES DISPOSITIFS ET LES PROTECTIONS DE SECURITE!

•NO QUITAR LOS DISPOSITIVOS Y LAS PROTECCIONES DE SEGURIDAD !

- 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 SPÄNNEN, INDEM DAS HANDRAD BIS ZUM ENDE GEDREHT 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.



## 9. MAINTENANCE AND REPAIRS

### 9.1 GENERAL SAFETY MEASURES

- A. 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 .
- B. Before carrying out any work on electrical equipment , remove the power supply plug from the control panel ( disconnect voltage ) .
- C. Only use cables to supply power , which have a cross-section suited to the power of the machine .
- D. 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 .
- E. 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 .



## 9.2 ROUTINE CHECKS AND MAINTENANCE

FREQUENCY ( working hours )	OPERATION
1000 hours	Adjustment blade guide bearings
1000	Lubrication of mobile parts in the piece locking vice ( ENI GREASE MU EP 2 )
50	Cleaning of the coolant tank and filter check
if necessary	Add hydraulic unit oil with ENI ARNICA 32 ( Until the level )

## 9.3 DESCRIPTION OF ROUTINE MAINTENANCE

### A. Adjustment of the blade guide bearings

Loosen the screw 69-A , rotate the cams 72 , so that the blade guide bushings vertically position the blade in axis ( DRAW.5-6-7 ENCL.3 ) . Tighten the dowels 67-A until the blade secured . Loosen the dowels slightly ( about 1/10 of a turn ) .

The front blade guide must be positioned as near as 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 millimetre , so as to avoid inexactnesses 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.8 ENCL.3 ) , withdraw vice 16 completely by lowering the lever 22 . Clean and grease the mobile parts of the 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 . Lubricate the rotating plate 13 through the grease fitting on the back of the bench .

### C. Cleaning of the coolant tank .

Empty the coolant from the tank 42 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 ( 15 liters ) .

## 10. INFORMATION REGARDING ENVIRONMENTAL NOISE

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

ACOUSTIC RADIATION PRESSURE

1.  $L_{Aeq} = 83,2 \text{ dB ( A )}$  .
2.  $L_{peak} = 90,6 \text{ dB}$  ( 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 the cooling liquid to avoid corrosion .
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 , dry , 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 87/101/EEC Directives and to country specific regulations . The disposal of electrical components is provided for by European Directives UE 2015/863 .




## 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 ø12,5/45 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	1
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	059-1/36	1
20	Vice handwheel	072/36	1
21	Vice cylinder	059/36	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 tensioning handwheel	058/35	1
29	Micro ERSCE 100 00 AI	022/90	1
30	Blade tightener guide plate with handle support	059/42	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 ø25/35	040/39	1
35	Handle rod	058/42	1
36	Screw TE M12x25 UNI-5737		3
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 ø3/8"	035/96	1
45	Bow cylinder	059/38	1
46	Micro ERSCE 100 00 S5 I	030/90	1
47	Screw TE M10x100 UNI-5739		1
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	Key 10x8x22 UNI-6604-A		1
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	Blade	SUP3200270934	
62			
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 1/8"	030/96	2
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-A/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	146/05	1
96	Micro	328/90	1
97	Antigrease ring	020/35	2
98			
99	Potentiometer	099/90	1
100	Potentiometer guard	018/42	1
101	Potentiometer support bracket	115/38	1
102	Potentiometer bush	044-A/41	1
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	Screw TCEI M6x35 UNI-5931		1
113	Screw TCEI M6x35 UNI-5931		1
114	Washer x ø6 UNI-6592		4
115	Nut M6 UNI-5588		2
116	Millimetric rod	077/32	1
117	Screw TSPEI M6x15 UNI-5933		2
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
122	Screw TE M12x55 UNI-5737		4
128	Handle M12x45	037/32	1
129	Limit switch plate	083/35	1
130	Front cover	001-E/39	1
146	Hydraulic unit	074/90	1
147	Motor M71 4P 3F kW 0.55 B5	220-A/80	1
148	Bow lowering solenoid valve	351/90	1
149	Vice solenoid valve	350/90	1
150	Block solenoid valve	074-C/90	1

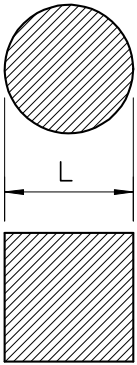
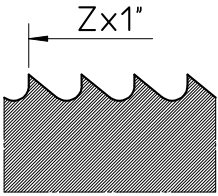
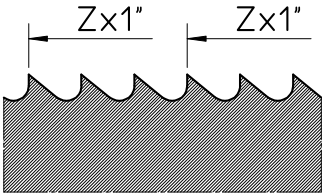
POS.	DESCRIPTION	CODE	Q.TY
200	Plate with electrical components	054-C/38 131/38	1
201	Control panel	053-E/38 053-G/38	1
202	Fuse 10x38 gG 4A	204/90	2
203	Change-over switch VEMER CA0120000R03	018/90	1
204			
205	Transformer 100VA 0-230-400V 0-24V	044/90	1
206			
207			
208	Fuse 10x38 aM 10A	206/90	3
209	Fuse carrier WEBER PCH3x38	092/90	1
210	Omega holed bar	048/90	1
211	Omega holed bar	047/90	1
212	Terminal CABUR CBD.2	222/90	13/15
213	Cable clamp Pg9	213/90	1
214	Cable clamp Pg13,5	215/90	2
215	Remote control switch LC1-D12	032/90	3
216	Terminal CARBUR CBD 4	225/90	3
217			
218	Thermal relay LR2-D1308/10/12	053/90	2
219	Fuse carrier WEBER PCH1x38	093/90	1
220	Fuse carrier WEBER PCH2x38	094/90	2
221	Fuse 10x38 aM 6A	205/90	1
222			
223			
224	Button march TCQZB4BA2	086/90	2
225			
226	Emergency button	085/90	1
227			
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	054/38	1
231	Fuse 10x38 aM 2A	356/90	2
232	Board SMD200	357/90	1
233	Luminous button march	087/90	4
234	Filter RC400 for single phase pump	354/90	1

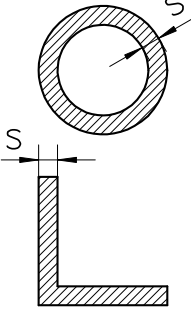
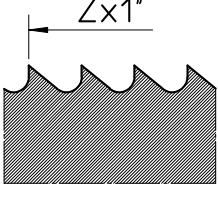
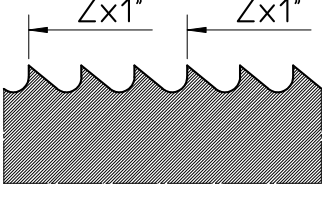
# CAPACITA' DI TAGLIO - Special 411 M-CSO-S

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 SAEGEBLATTS  
 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 Volles Material Pies Profilati Structural steel Profilés 77 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 alliés 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 Alliages d'aluminium Legierungen aus Aluminium Aleación de Aluminio		77
Bronzi Bronze Bronze Bronze Bronze Bronces		77

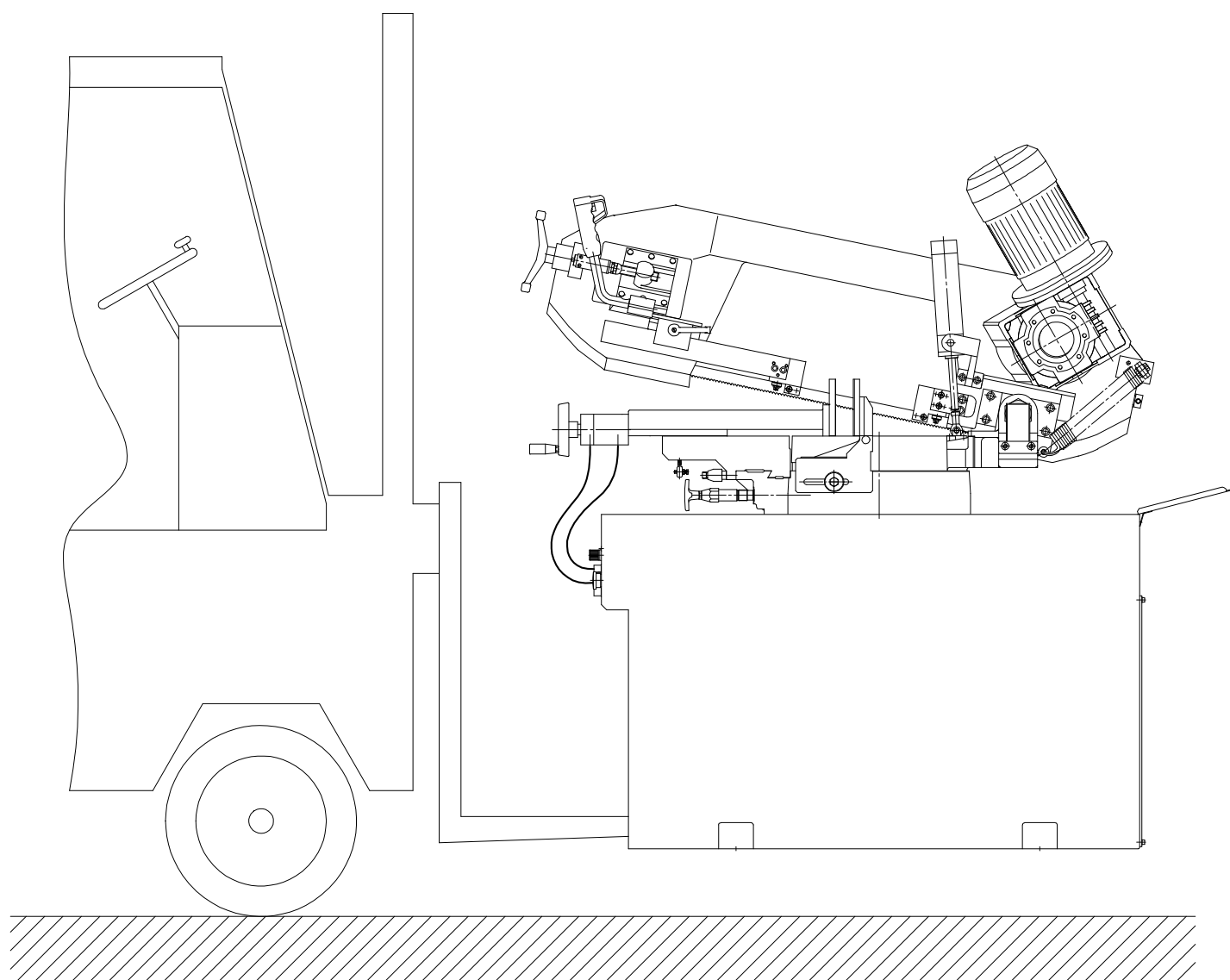
## MOVIMENTAZIONE E TRASPORTO

Handling and transportation

Manutention et transport

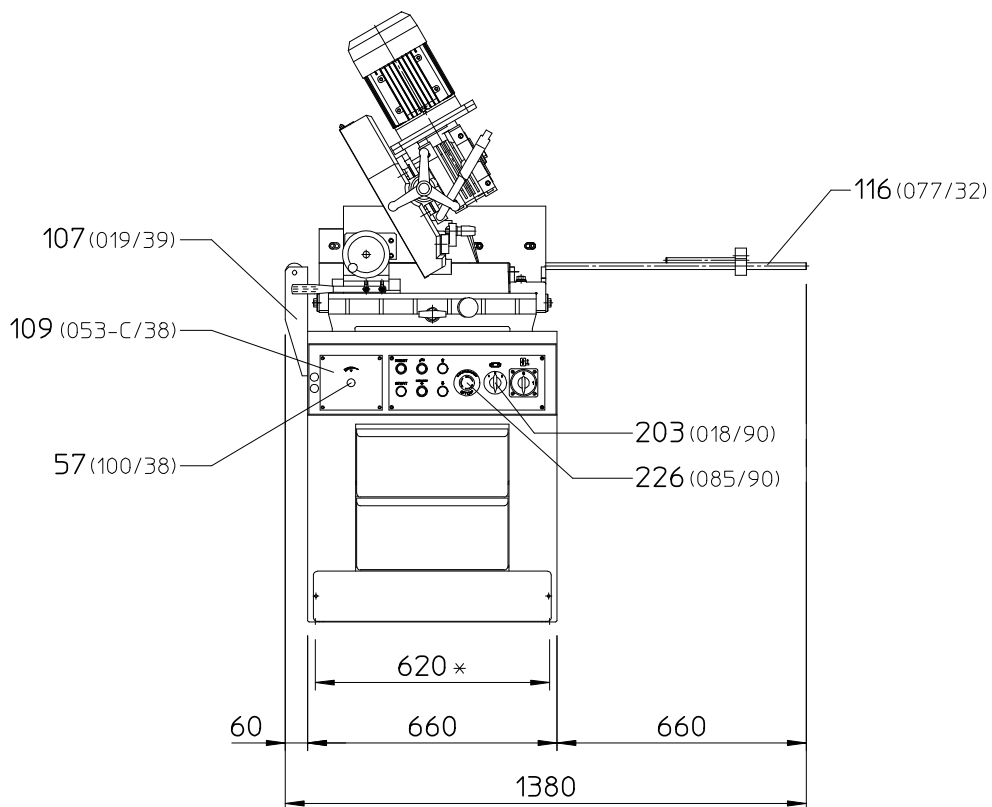
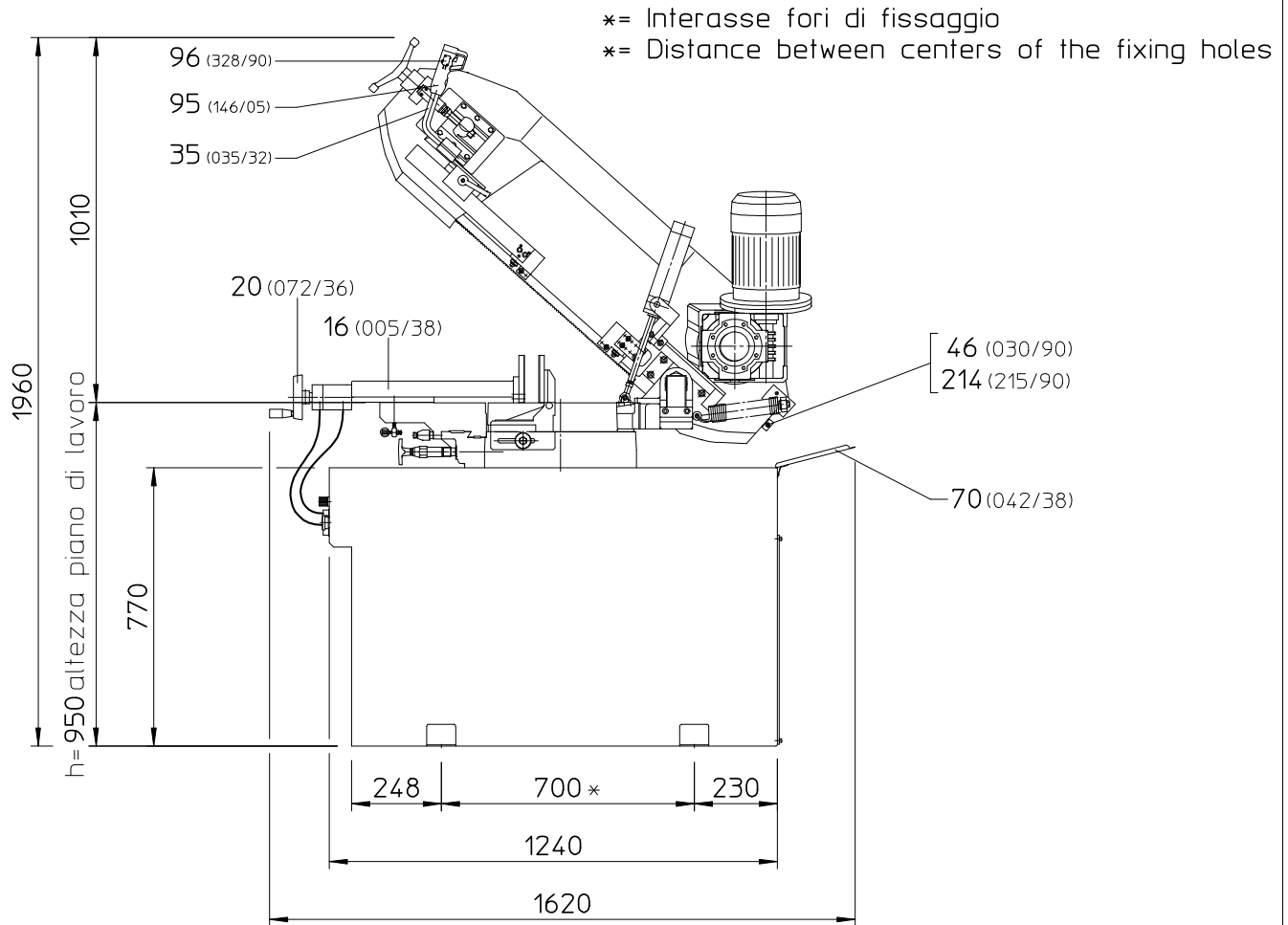
Handhabung und Transport

Movilización y transporte

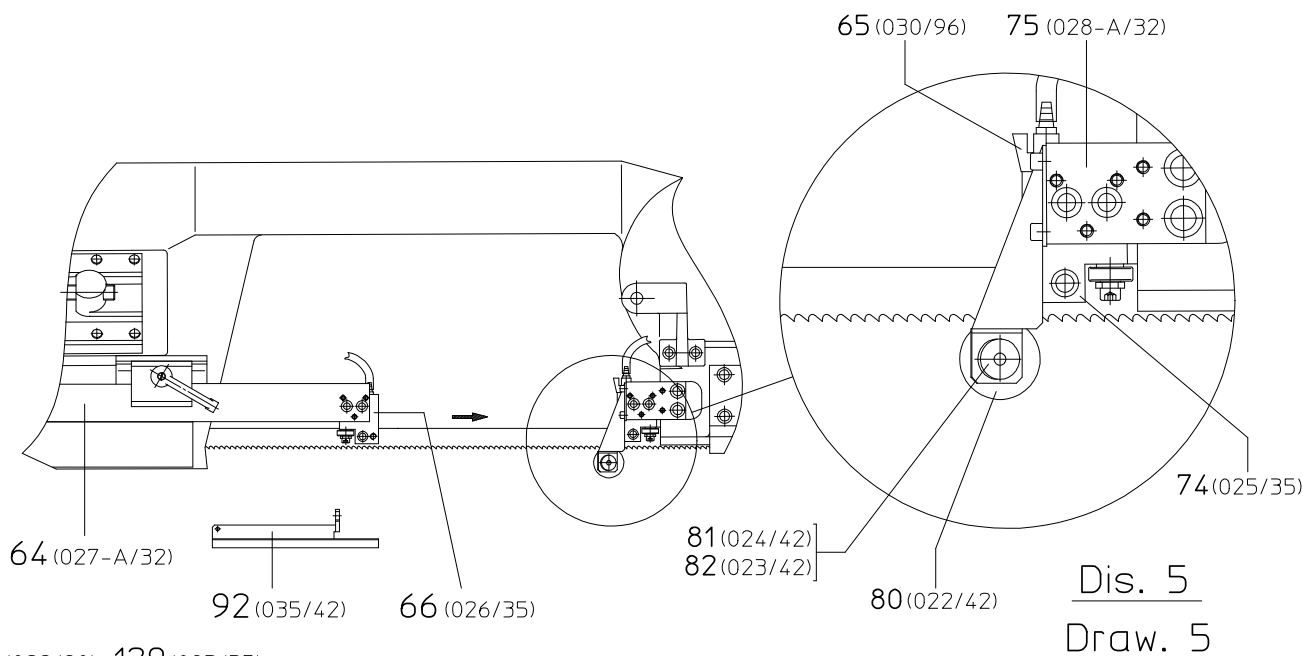


# DIMENSIONI D'INGOMBRO ED INSTALLAZIONE

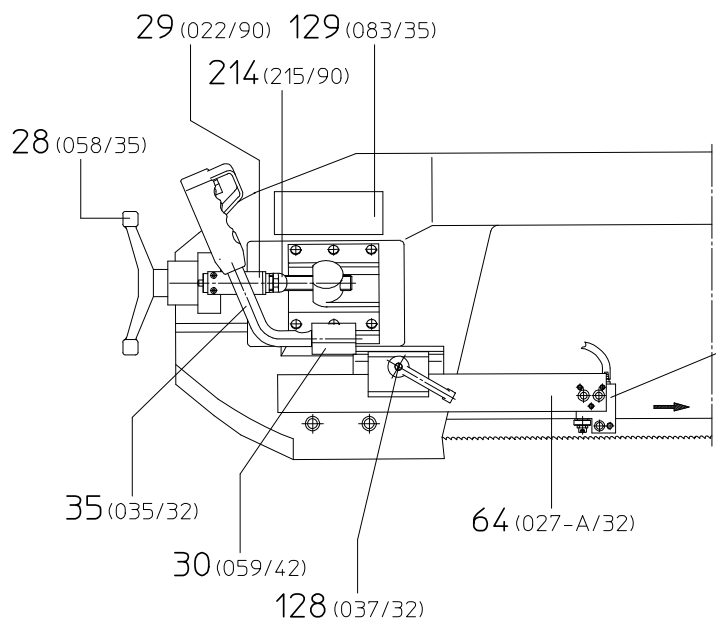
Overall dimensions and installation  
 Dimensions hors-tout et installation  
 Aussenabmessungen und installation  
 Dimensiones máximas extremas e instalación





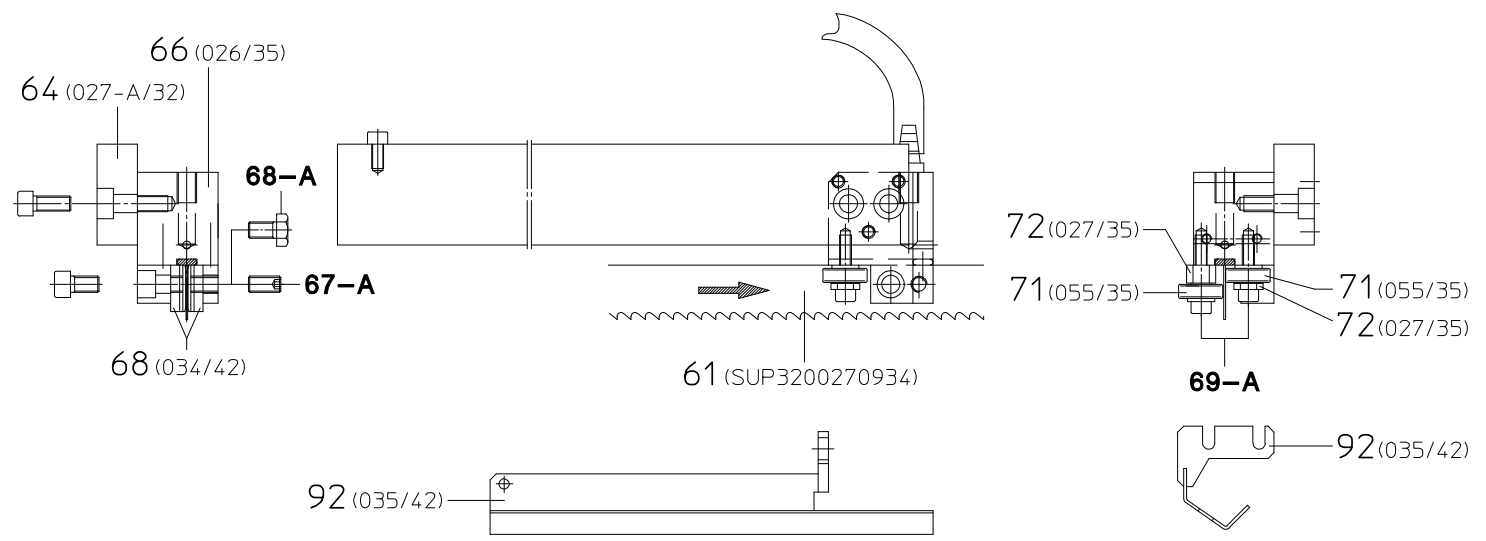


Dis. 5  
Draw. 5

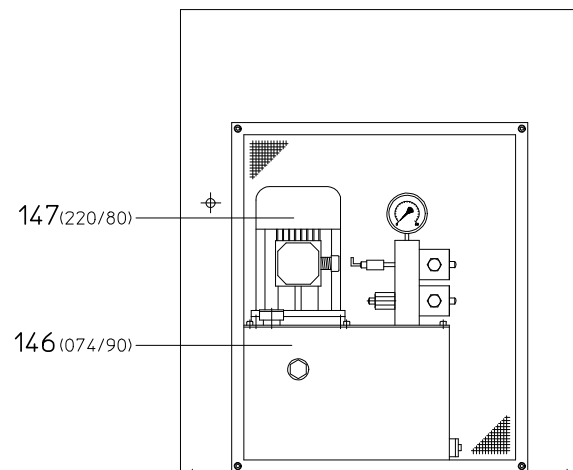
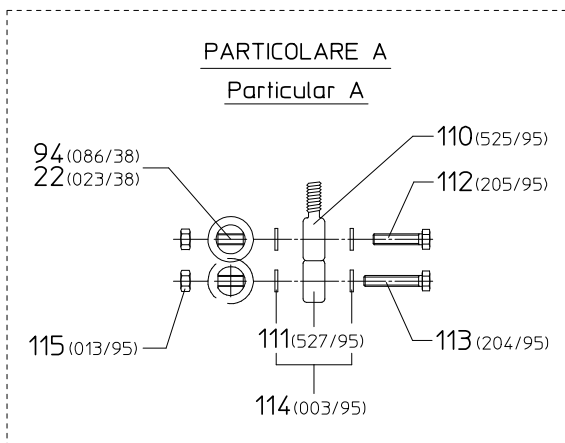
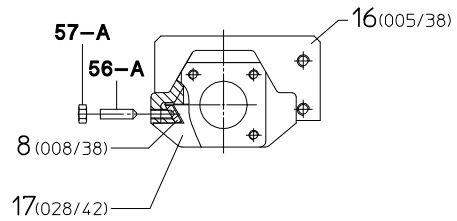
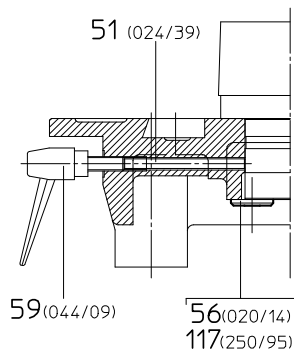
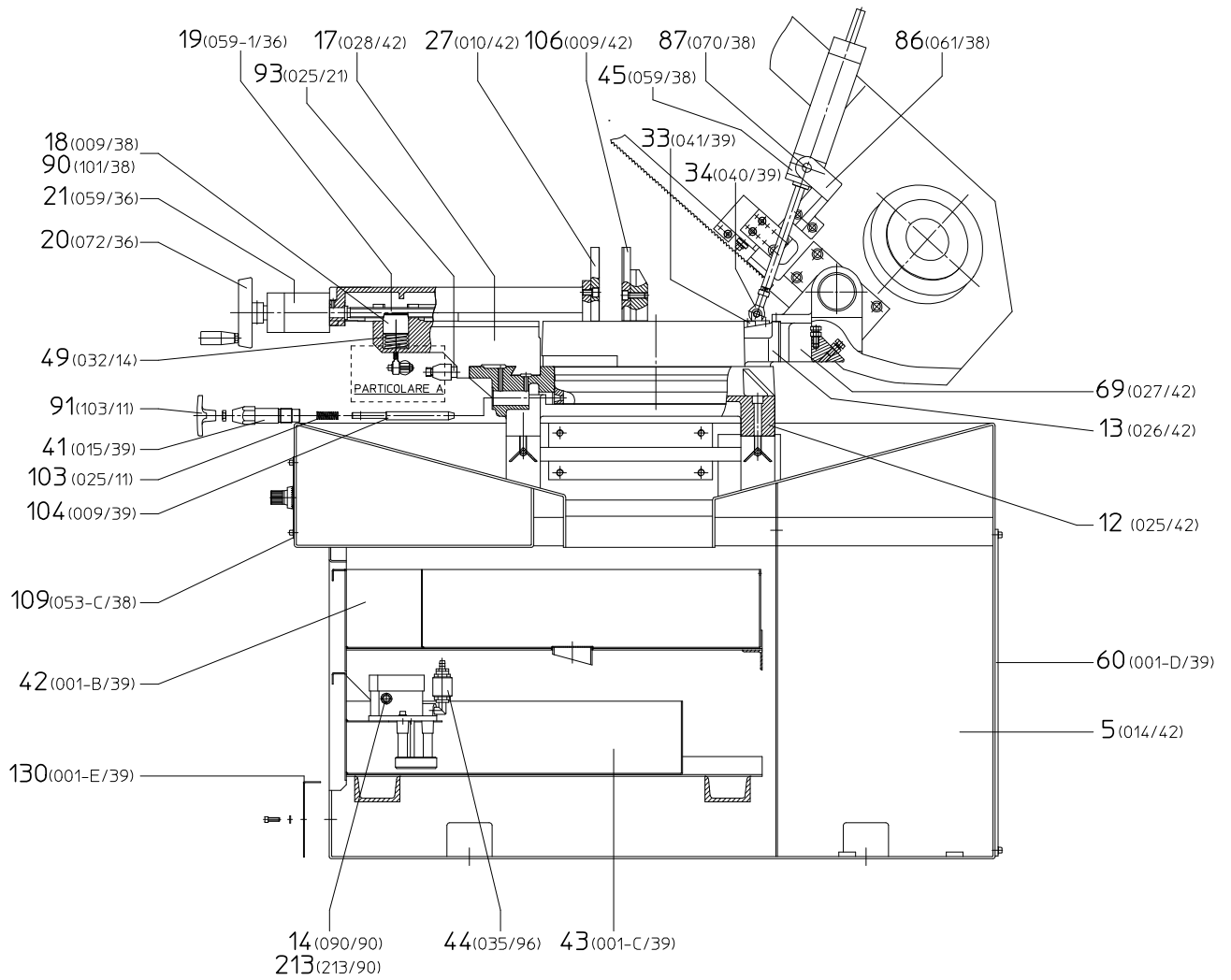


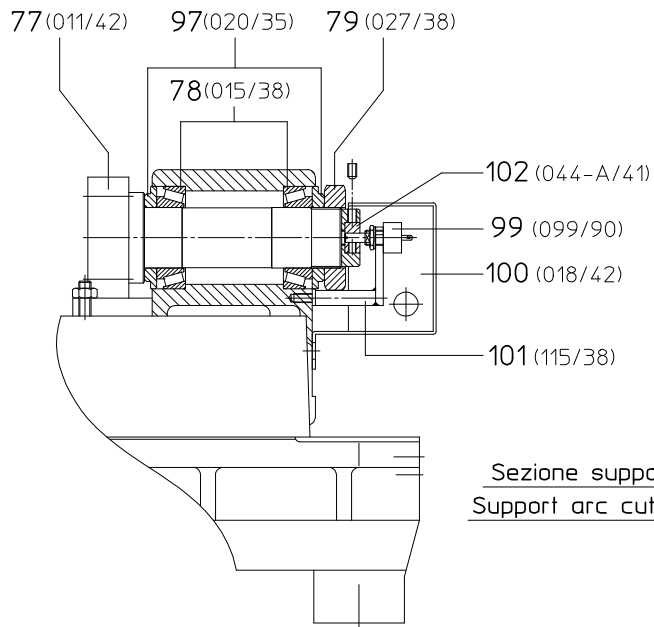
PATTINO GUIDA ANTERIORE  
FRONT BLADE GUIDE  
PATIN GUIDAGE ANTERIEUR  
VORDERER FÜHRUNGSKUFE

Dis. 6  
Draw. 6

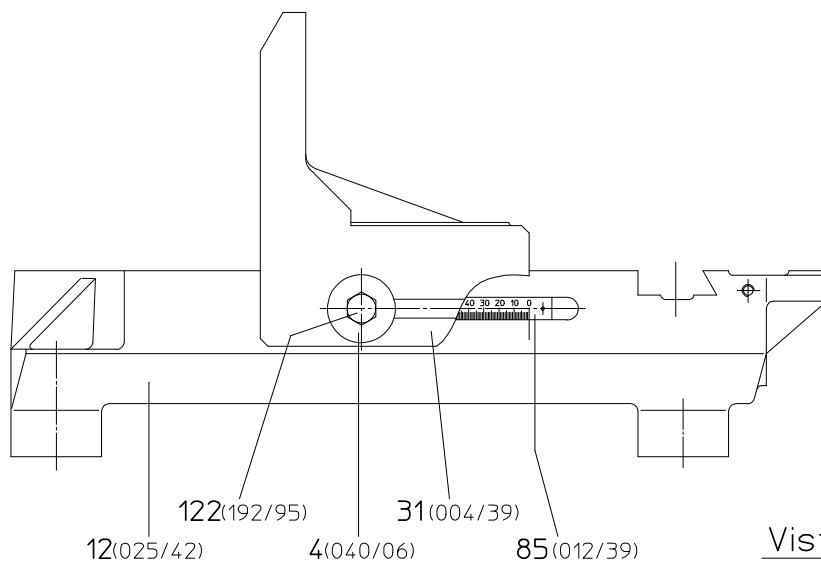
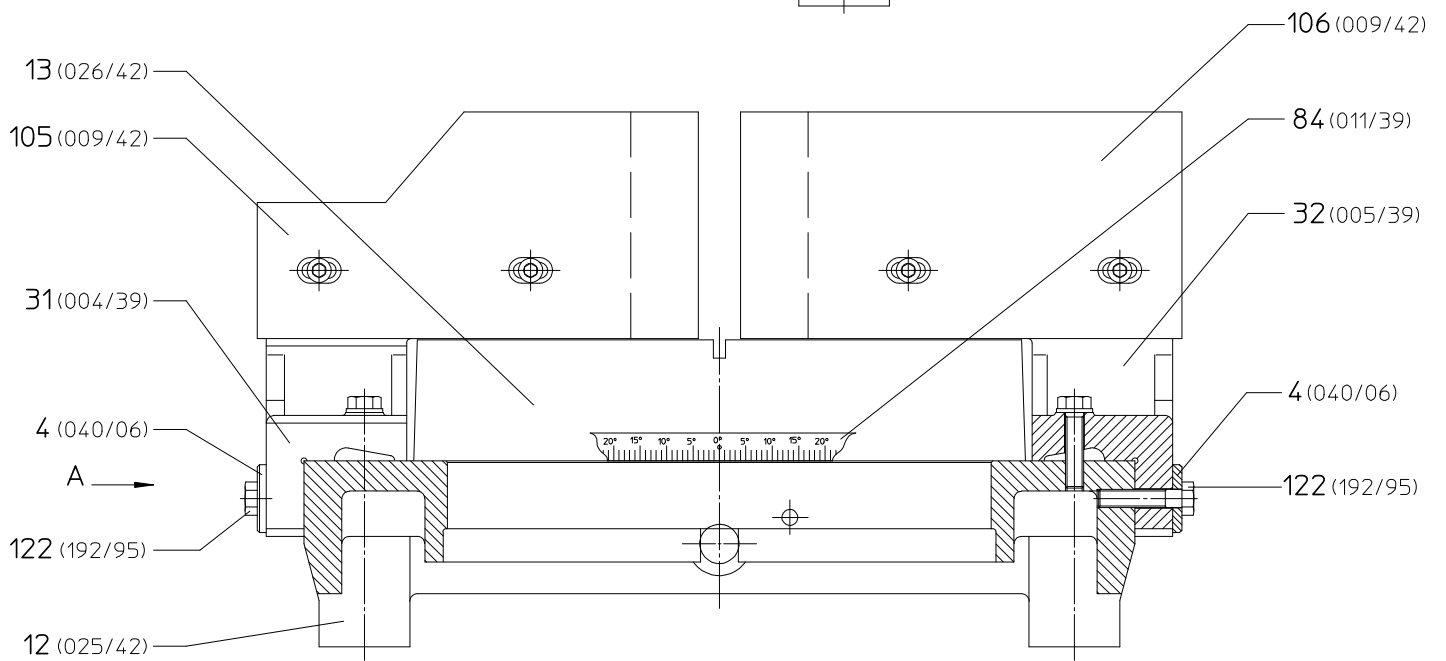


Dis. 7  
Draw. 7

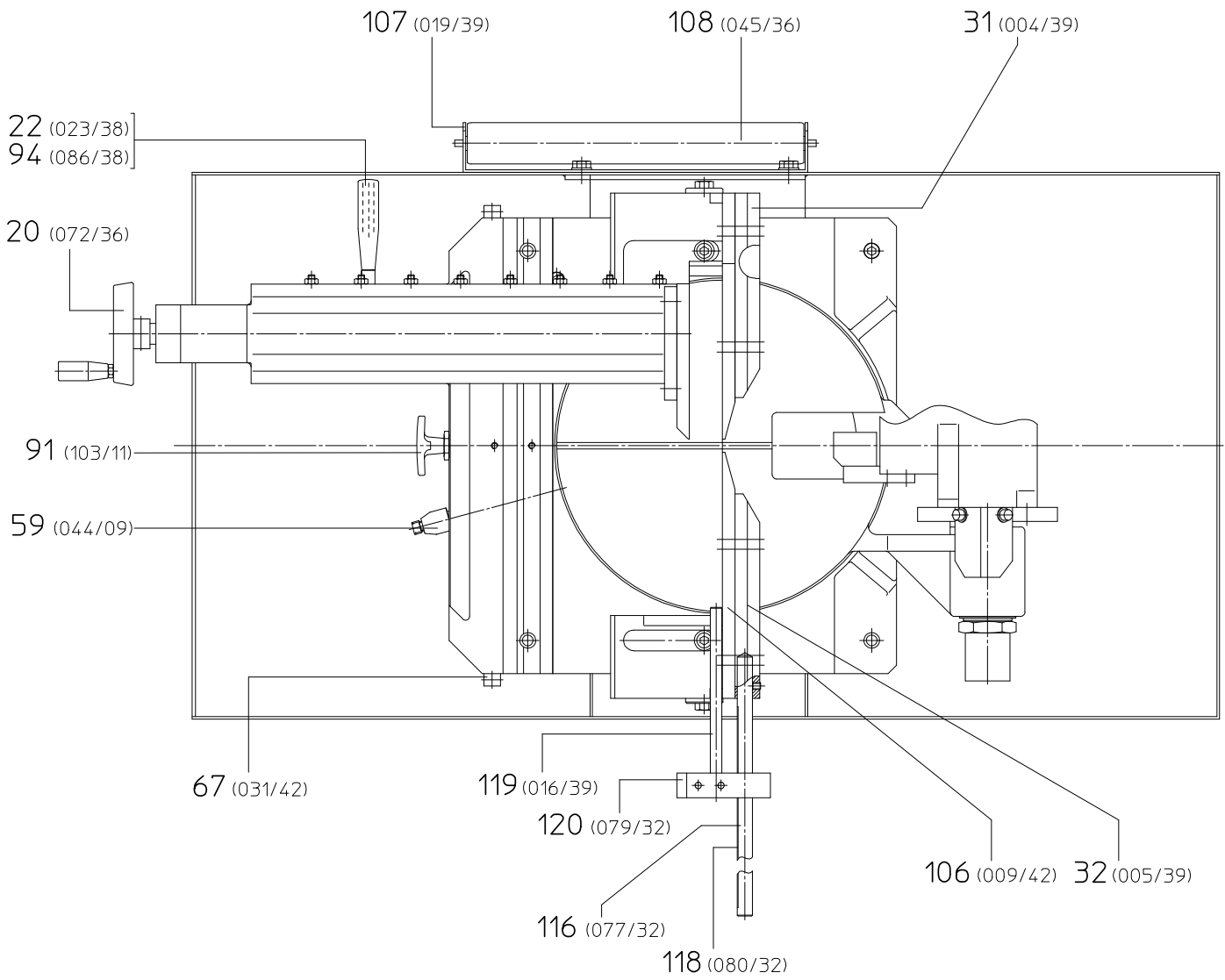




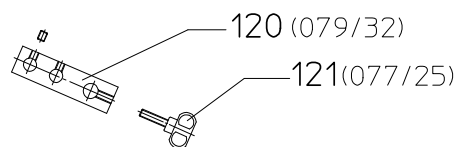
Sezione supporto arco  
Support arc cutaway view

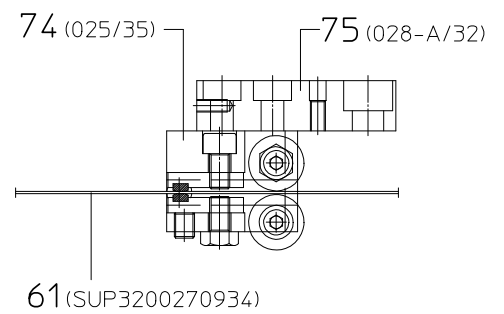
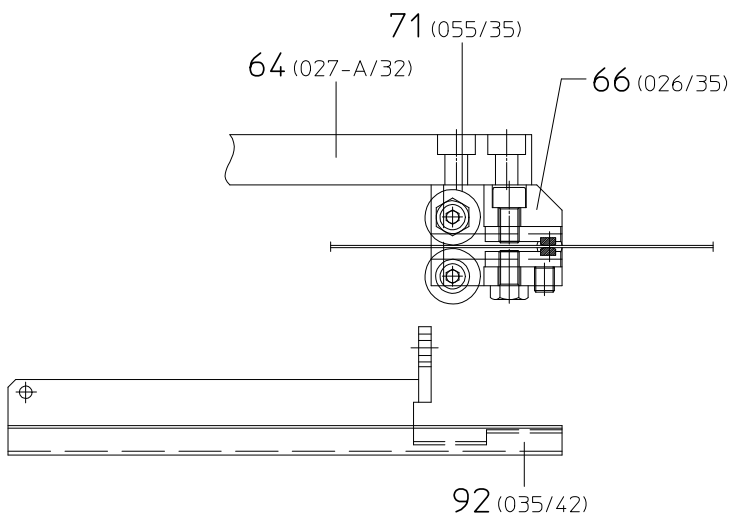
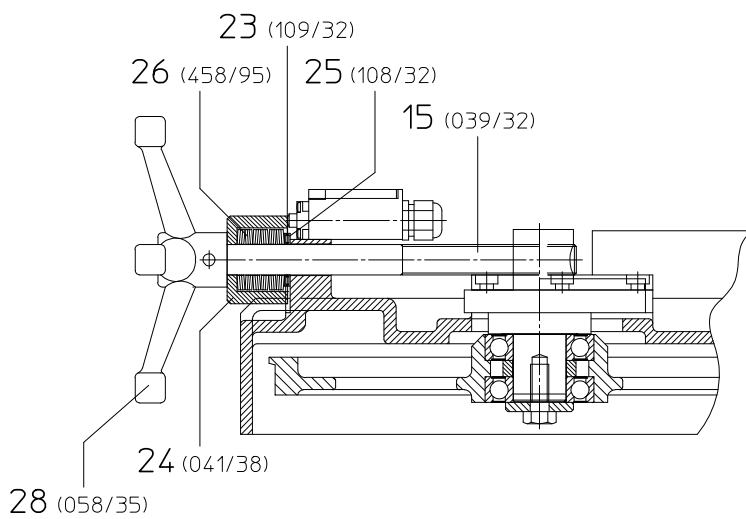
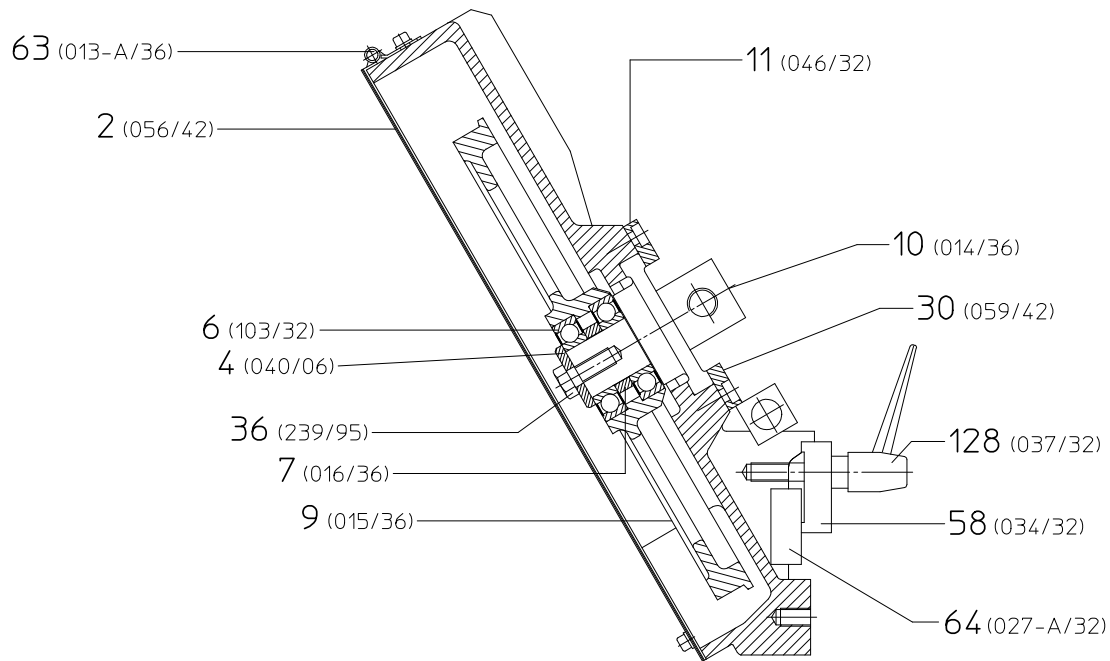


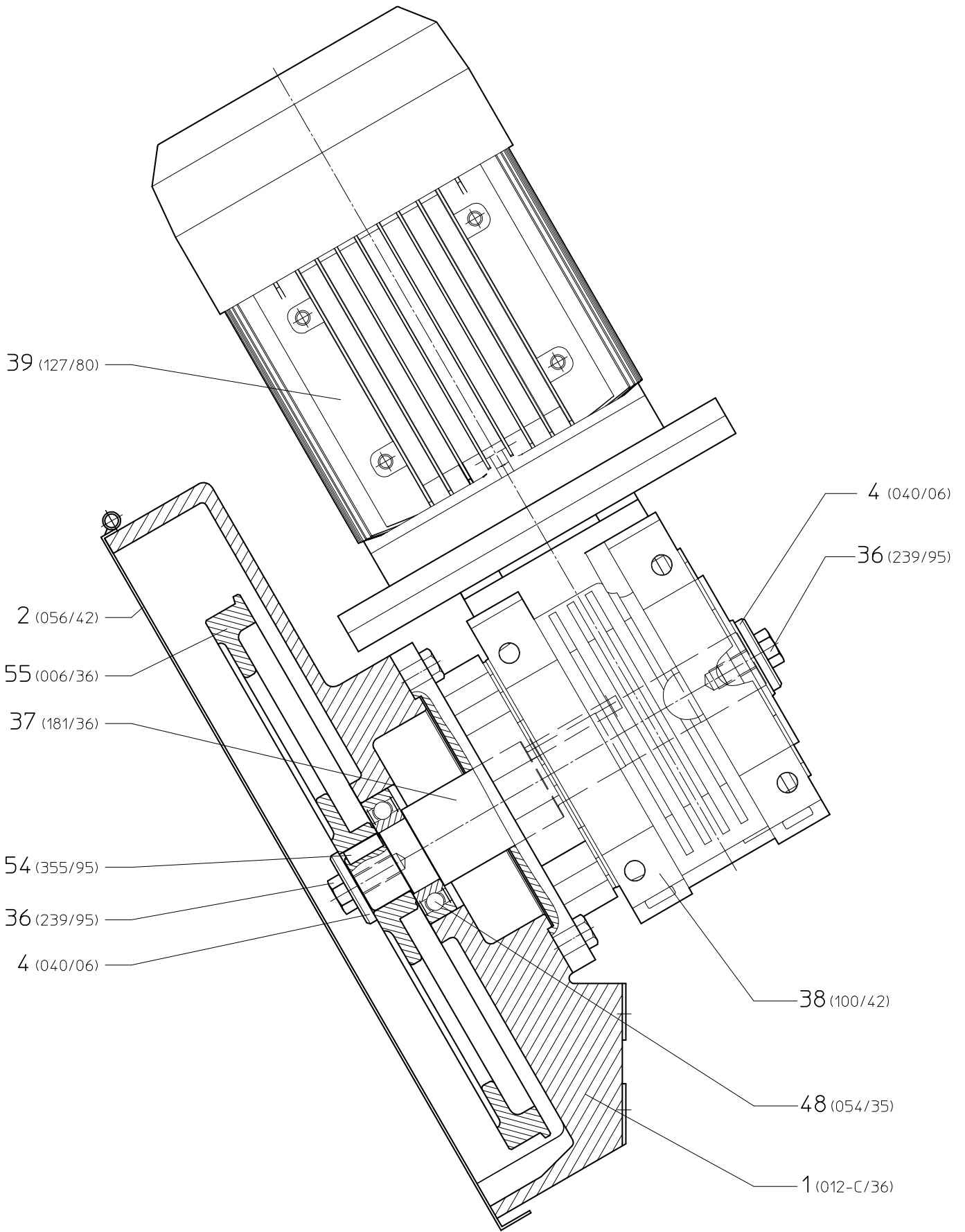
Vista da A

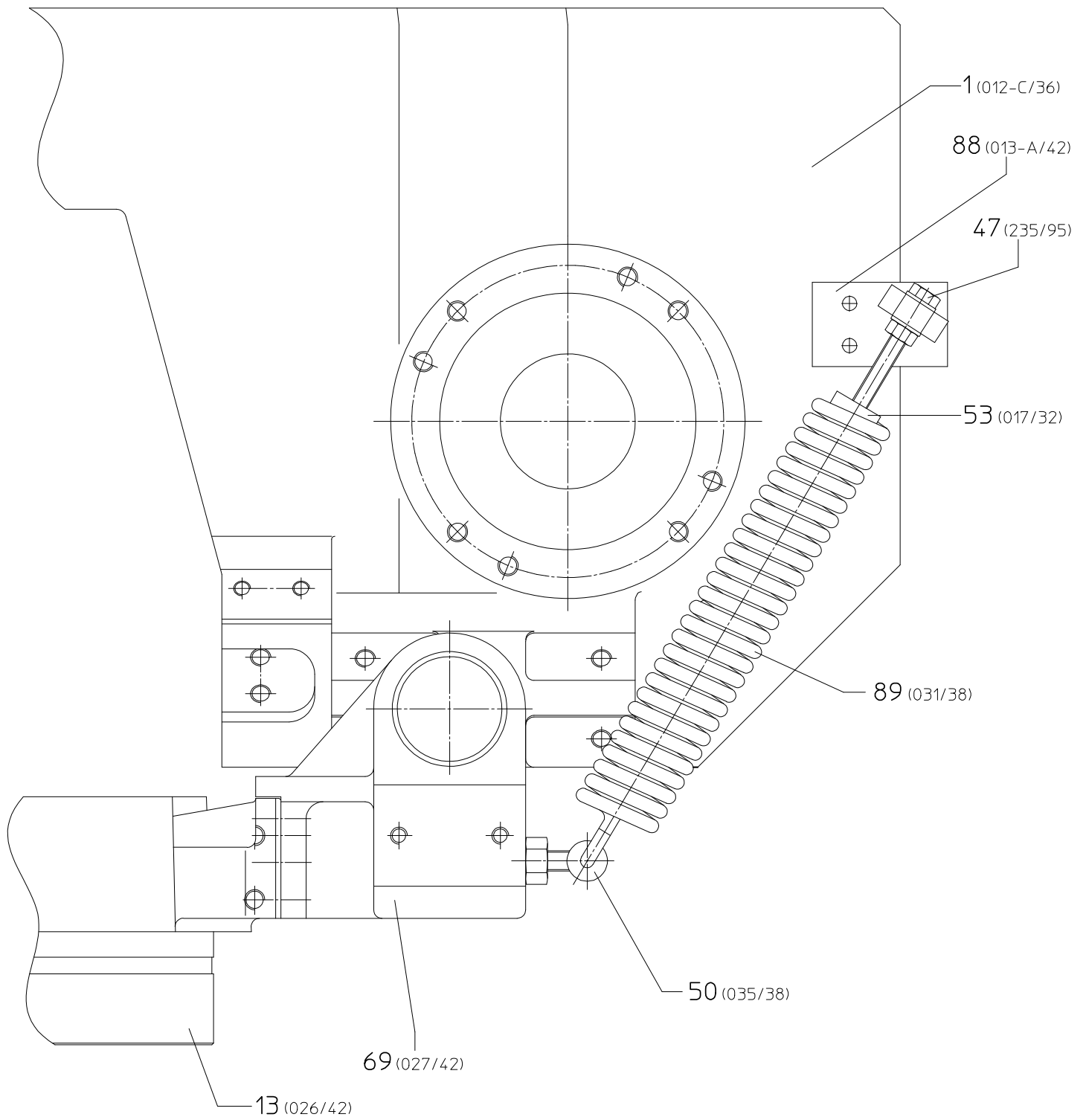


PARTICOLARE FERMO BARRA  
PARTICULAR BAR STOP



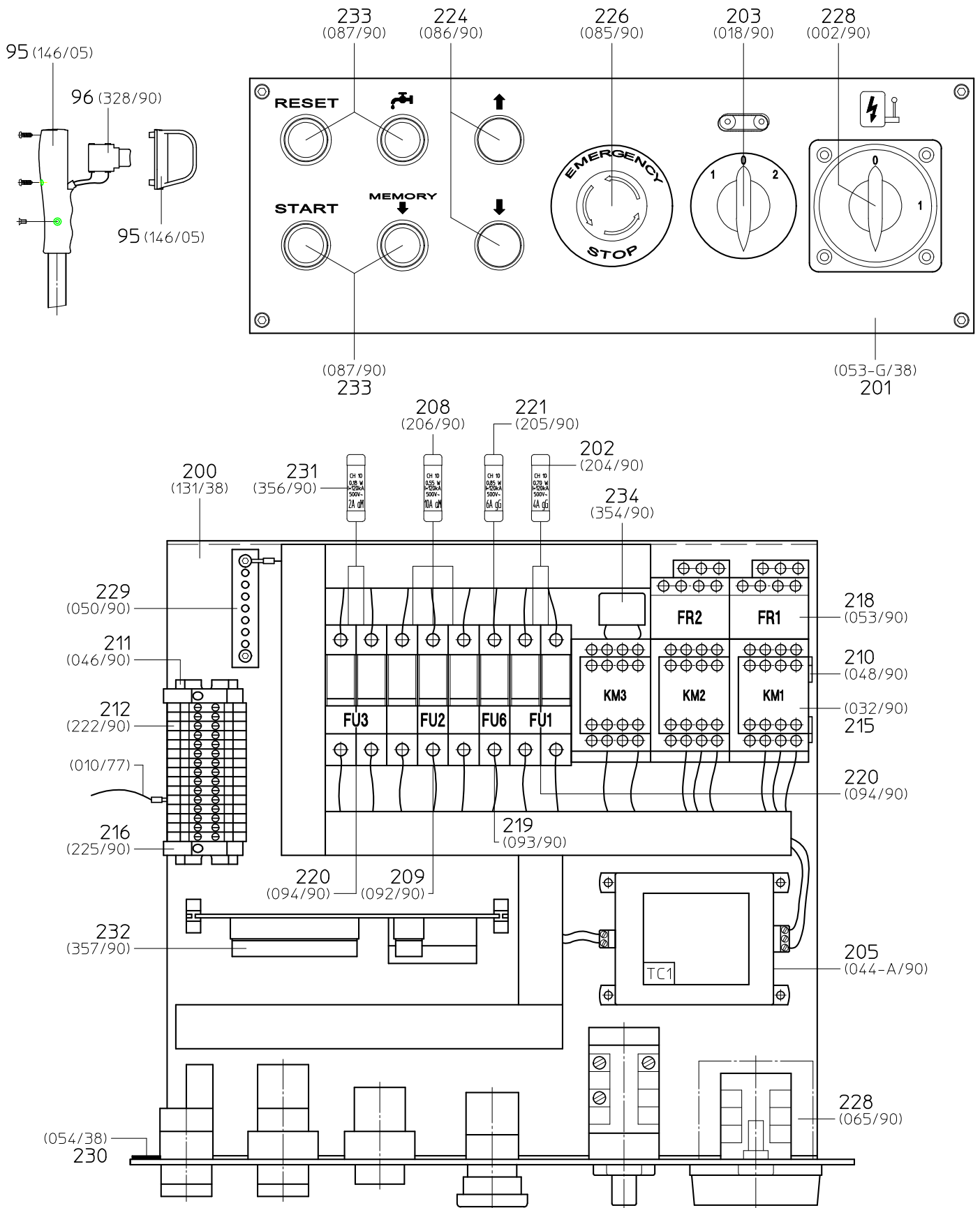






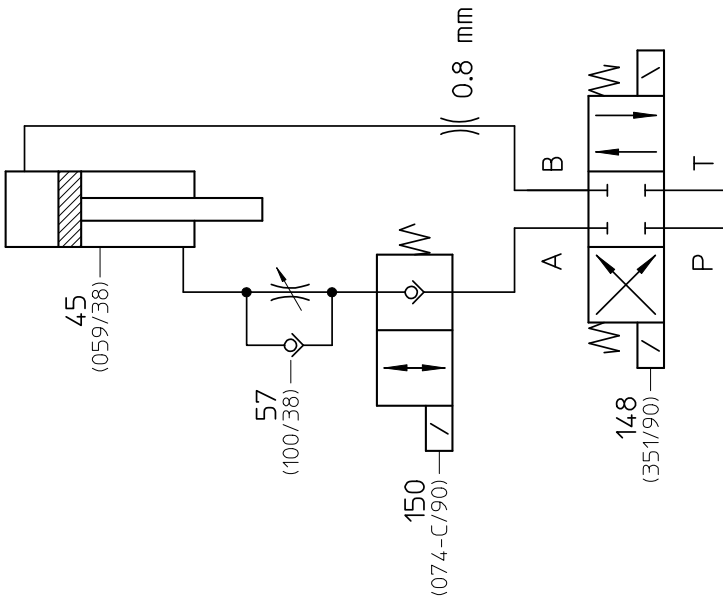
# PANNELLO COMANDI SPECIAL 320-330-411 S

## CONTROL PANEL SPECIAL 320-330-411 S

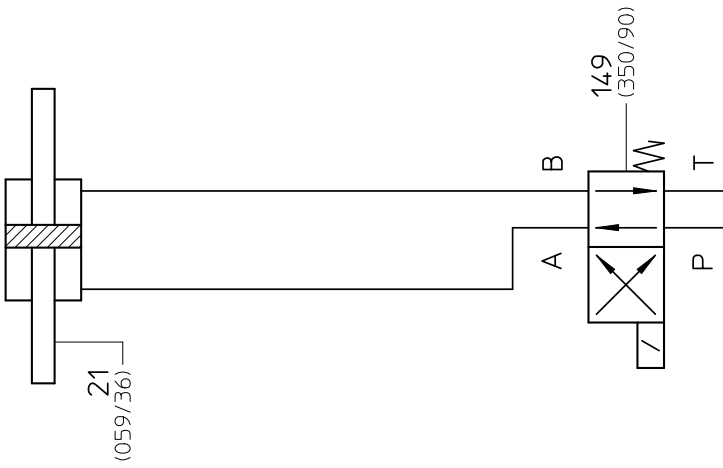




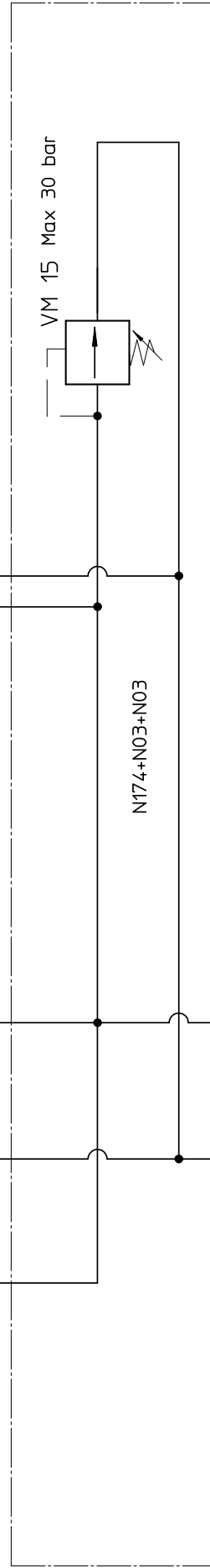
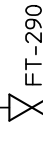
LAMA



MORSA



BOBINE : 24V - 50HZ  
 Coils  
 Bobines  
 Spulen  
 Bobinas



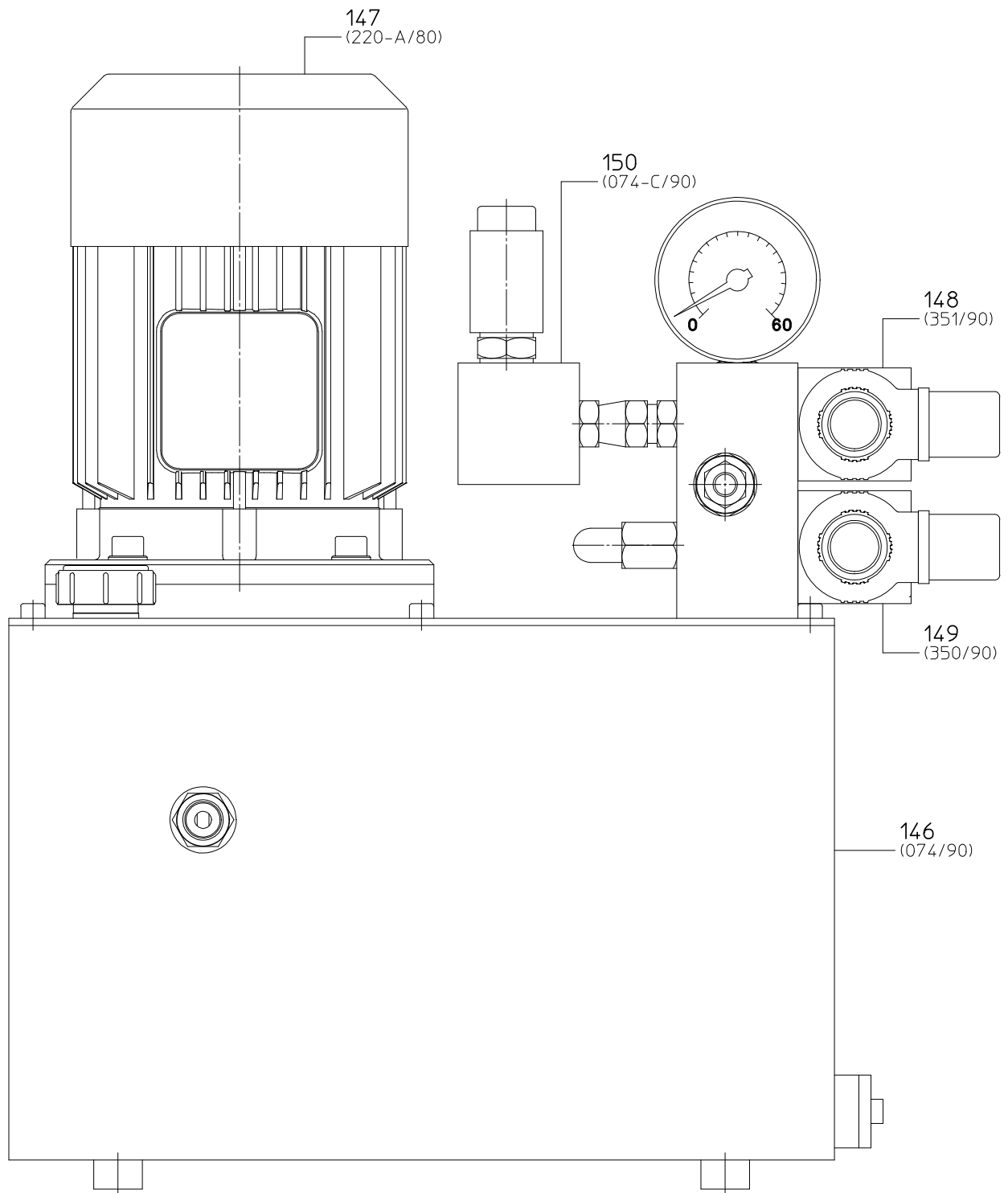
SCHEMA IMPIANTO IDRAULICO

Hydraulic Diagram

Schema installation Hydraulique

Hydraulikschemata

Sistema Hidráulica





	ITALIANO	ENGLISH	DEUTSCH
<b>FR1</b>	RELE' TERMICO MOTORE POMPA OLIO	THERMAL RELAY OIL PUMP MOTOR	THERMISCHES RELAIS OIL PUMPE MOTOR
<b>FR2</b>	RELE' TERMICO MOTORE LAMA	THERMAL RELAY BLADE MOTOR	THERMISCHES RELAIS SÄGEBLATTMOTOR
<b>FR3</b>	RELE' TERMICO MOTORE REFRIGERANTE	THERMAL RELAY COOLANT MOTOR	THERMISCHES RELAIS ÜHLMITTEL MOTOR
<b>FR4</b>	RELE' TERMICO MOTORE ESTRATTORE TRUCIOLI	RELAY THERMAL CHIPS EXTRACTOR MOTOR	THERMISCHES RELAIS CHIP EXTRACTORMOTOR
<b>FR5</b>	RELE' TERMICO MOTORE GUIDA PEZZO	THERMAL RELAY GUIDA-PIECE MOTOR	THERMISCHES RELAIS Motor Führungsstück
<b>FTC</b>	FOTOCELLULA PRESENZA MATERIALE	MATERIAL PRESENCE PHOTOELECTRIC CELL	Photozelle Werkstoff Anwesenheit.
<b>FU1</b>	FUSIBILI PROTEZIONE TRASFORMATORE	FUSE TRANSFORMER PROTECTION	SICHERUNG TRAF0 SCHUTZ
<b>FU2</b>	FUSIBILI PROTEZIONE MOTORI	FUSE MOTOR PROTECTION	SICHERUNG MOTOR SCHUTZ
<b>FU3</b>	FUSIBILI PROTEZIONE POMPA REFRIGERANTE	FUSE COOLANT PUMP PROTECTION	SICHERUNG KÜHLMITTELPOMPE SCHUTZ
<b>FU4</b>	FUSIBILI PROTEZIONE ALIMENTATORE	FUSE FEEDER PROTECTION	SICHERUNG ZUFÜHRER SCHUTZ
<b>FU5</b>	FUSIBILI PROTEZIONE 24 V dc	FUSE 24 V dc PROTECTION	SICHERUNG 24 V dc SCHUTZ
<b>FU6</b>	FUSIBILI PROTEZIONE 24 V ac	FUSE 24 V ac PROTECTION	SICHERUNG 24 V ac SCHUTZ
<b>FU7</b>	FUSIBILE PROTEZIONE MOTORE INVERTER	FUSE INVERTER PROTECTION	GESCHWINDIGKEITUMRICHTER SICHERUNGSDRAHT
<b>G</b>	GALLEGGIANTE	FLOAT	SCHWIMMER
<b>H1</b>	SPIA PRESENZA LINEA	SPY LINE PRESENCE	LINE PRÄSENZ LAMPE
<b>H2</b>	SPIA LAMA IN TENSIONE	SPY BLADE IN TENSION	BLATT TENSION LAMPE
<b>H3</b>	SPIA START CICLO	SPY CYCLE START	ZYKLUS START LAMPE
<b>K</b>	TELERUTTORE TERMORESISTENZA	THERMO-RESISTANCE CONTROL SWITCH	KONTAKTGEBER WIDERSTANDSTHERMOMETER
<b>KM0</b>	TELERUTTORE ALIMENT. INVERTER	INVERTER FEEDING CONTROL SWITCH	Fernschalter Frequenzumrichter Versorgung
<b>KM1</b>	TELERUTTORE MOTORE POMPA OLIO	OIL PUMP MOTOR REMOTE CONTROL SWITCH	KONTAKTGEBER ZENTRALHYDRAULIK MOTOR
<b>KM2</b>	TELERUTTORE MOTORE LAMA	BLADE MOTOR REMOTE CONTROL SWITCH	KONTAKTGEBER SÄGEBLATTMOTOR
<b>KM3</b>	TELERUTTORE POMPA REFRIGERANTE	COOLANT PUMP REMOTE CONTROL SWITCH	KONTAKTGEBER KÜHLMITTELPUMPE
<b>KM4</b>	TELERUTTORE ESTRATTORE TRUCIOLI (COCLEA)	CHIP EXTRACTOR CONTROL SWITCH	KONTAKTGEBER SPÄNE AUSZIEHER
<b>KM5</b>	TELERUTTORE MOTORE GUIDA PEZZO	THERMAL RELAY GUIDA-PIECE MOTOR CONTROL SWITCH	KONTAKTGEBER Motor Führungsstück
<b>KM6</b>	TELERUTTORE POMPA RECUPERO REFRIGERANTE	COOLANT RECYCLE PUMP THERMAL RELAY	KONTAKTGEBER KUEHLMITTELPUMPE
<b>M1</b>	MOTORE POMPA OLIO	OIL PUMP MOTOR	ZENTRALHYDRAULIKMOTOR
<b>M2</b>	MOTORE LAMA	BLADE MOTOR	SÄGEBLATTMOTOR
<b>M3</b>	MOTORE POMPA REFRIGERANTE	COOLANT PUMP MOTOR	KÜHLMITTELPUMPE MOTOR
<b>M4</b>	MOTORE ESTRATTORE TRUCIOLI	CHIP EXTRACTOR MOTOR	SPAENEAUSLASSVORRICHTUNG MOTOR
<b>M5</b>	MOTORE ROTAZIONE TESTA	SAWHEAD ROTATION MOTOR	DREHUNGS KOPF MOTOR
<b>M50</b>	MOTORE GUIDA PEZZO	GUIDA-PIECE MOTOR	FÜHRUNGSSTÜCK MOTOR



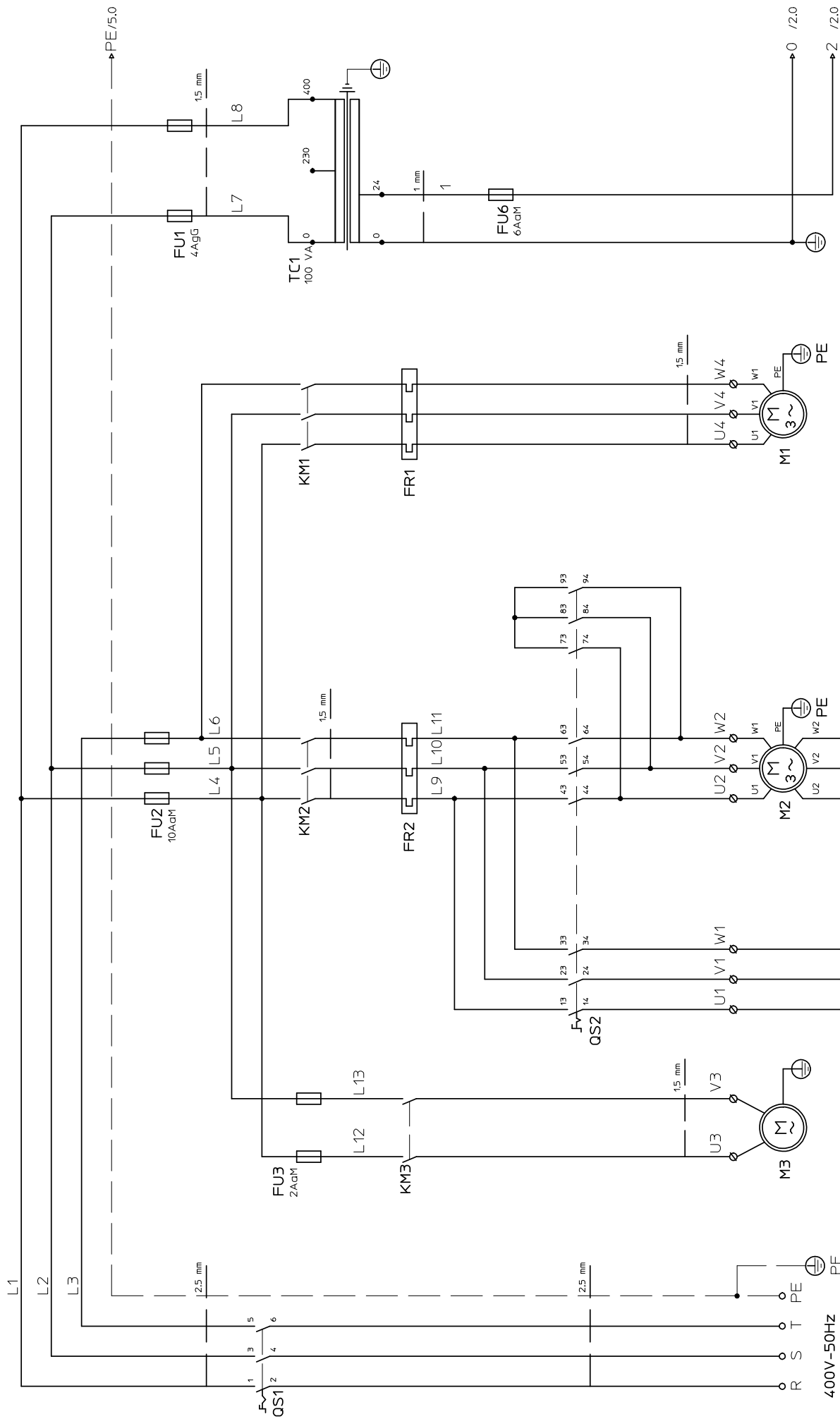
<b>M6</b>	MOTORE AVANZAMENTO MATERIALE	MATERIAL FEEDING OTOR	VORSCHUBMATERIAL MOTOR
<b>P1</b>	POTENZIOMETRO POSIZIONAMENTO LAMA	BLADE POSITIONING POTENTIOMETER	SÄGEBLATT-STENUNG POTENZIOMETER
<b>P2</b>	POTENZIOMETRO VELOCITA' LAMA	BLADE SPEED POTENTIOMETER	SÄGEBLATT-GESCHWINDIGKEIT POTENZIOMETER
<b>PX1</b>	SENSORE ROTAZIONE LAMA	BLADE ROTATION SENSOR	BLATT UMDREHUNGSSENSOR
<b>QS1</b>	INTERRUPTORE GENERALE	MAIN ON / OFF SWITCH	HAUPTSCHALTER
<b>QS2</b>	INTERRUPTORE / COMMUTATORE DI VELOCITA'	SWITCH / SPEED CHANGE OVERSWITCH	SCHALTER / GESCHWINDIGKEIT UMSCHALTER
<b>QS3</b>	INTERRUPTORE POMPA REFRIGERANTE	COOLANT PUMP SWITCH	KÜHLMITTELpumpe SCHALTER
<b>R</b>	RELE' COMANDO MARCIA ROTAZIONE LAMA	ROTATING BLADE COMMAND RELAY	SÄGEBLATT UMDREHUNG POTENZIOMETER
<b>R1</b>	RELE' COMANDO TELERUTTORE POMPA OLIO	OIL PUMP REMOTE CONTROL SWITCH COMMAND RELAY	RELAIS OIL PUMPE FERNSCHALTER
<b>R10</b>	RELE' PRESSINO ON	VERTICAL VICE RELAY	SENKRECHT SCHRAUBSTOCK RELE
<b>R2</b>	RELE' COMANDO TELERUTTORE LAMA	BLADE REMOTE CONTROL SWITCH COMMAND RELAY	RELAIS BLATT FERNSCHALTER
<b>R5</b>	RELE' COMANDO MICROLUBRIFICAZIONE	MICROLUBRICATION COMMAND RELAY	MIKROSPRÜHEINRICHTUNGSTEUER RELAIS
<b>RT</b>	RELE' TEMPORIZZATORE	TIMER RELAY	ZEITGEBER RELE
<b>RX</b>	RELE' COMANDO TERMOSTATO	THERMOSTAT COMMAND RELAY	THERMOSTATSTEUER RELAIS
<b>RYV5</b>	RELE' DISCESA LAMA	BADE DESCENT RELAY	SAEGEBLATT ABSTIG RELE
<b>S</b>	SELETTORE FUNZIONE	FUNCTION SELECTOR	FUNKTION WÄHLER
<b>S10</b>	SELETTORE PRESSINO ON	VERTICAL VICE ON CHANGEOVER SWITCH	GESCHWINDIGKEITUMRICHTER WAEHLER ON
<b>S4</b>	SELETTORE CAMBIO LAMA	BLADE RELACEMENT CHANGEOVER SWITCH	SAEGEBLATT WAEHLERSCHALTER
<b>SB1</b>	PULSANTE DI ARRESTO EMERGENZA	EMERGENCY PUSH BUTTON	NOT AUS TASTER
<b>SB11</b>	PULSANTE DETENSIONAMENTO LAMA	BLADE DETENSIONING BUTTON	SAEGEBLATT ENSPANNSCHALTER
<b>SB12</b>	PULSANTE TENSIONAMENTO LAMA	BLADE TENSIONING BUTTON	SAEGEBLAT SPANNSCHALTER
<b>SB2</b>	PULSANTE START CICLO	CYCLE START BUTTON	ZYKLUS START TASTER
<b>SB3</b>	PUSANTE DI RESET	RESET BUTTON	RESETTASTER
<b>SB4</b>	PULSANTE CHIUSURA MORSA	LOCK VICE BUTTON	SPANNSOCH SCHLIEß TASTER
<b>SB5</b>	PULSANTE APERTURA MORSA	OPEN VICE BUTTON	SPANNSTOCK ÖFFNUNG TASTER
<b>SB6</b>	PULSANTE DI SALITA	BUTTON UP	OBEN TASTER
<b>SB7</b>	PULSANTE DI DISCESA	BUTTON DOWN	HINTEN TASTER
<b>SB8</b>	PULSANTE REFRIGERANTE "ON"	REFRIGERANTE BUTTON "ON"	KÜHLUNG EIN TASTER
<b>SB9</b>	PULSANTE MEMORY	MEMORY BUTTON	MEMORY TASTER
<b>SB90</b>	PULSANTE DI SBLOCCO	RELEASE BUTTON	AUSLOESER TASTE
<b>SQ02</b>	MICROINTERUTTORE CARTER APERTO SX	COVER OPEN MICROSWITCH	SCHUTZ GEÖFFNET ENDSCHALTER
<b>SQ1</b>	MICROINTERUTTORE ROTTURA LAMA	MICROSWITCH BLADE FAILURE	ENDSCHALTER BLATT GEBROCHEN



<b>SQ10</b>	MICROINTERRUTTORE START A PEDALE	PEDAL MICROSWITCH START	PEDALS MIKROSCHALTER
<b>SQ11</b>	MICROINTERRUTTORE CHIUSURA MORSA A PEDALE	PEDAL VICE CLOSING MICROSWITCH	FußSCHALTER SPENNSTOCK SCHLIEßEN MIKROSCHALTER
<b>SQ15</b>	FINECORSА GUIDA PEZZO AVANTI	MICROSWITCH GUIDE-PIECE FORWARD	ENDSCHALTER FÜHRUNGSSTÜCK NACH VORNE
<b>SQ16</b>	FINECORSА GUIDA PEZZO INDIETRO	MICROSWITCH GUIDE-PIECE BACKWARD	ENDSCHALTER FÜHRUNGSSTÜCK NACH HINTEN
<b>SQ18</b>	FINECORSА SOLLEVATORE ALTO	MICROSWITCH LIFT UP POSITION	HEBEWERK NACH OBEN ENDSCHALTER
<b>SQ2</b>	MICROINTERRUTTORE CARTER APERTO	MICROSWITCH PROTECTION CASE	ENDSCHALTER SCHUTZGEHÄUSE
<b>SQ20</b>	PRESSOSTATO CHIUSURA MORSA	VICE PRESSURE SWITCH	SPANNDRUCK TASTE
<b>SQ3</b>	FINECORSА CARRO AVANTI	MICROSWITCH CARRIAGE FORWARD	ENDSCHALTER WAGEN VORNE
<b>SQ30</b>	FINECORSА ROTAZIONE -45°	MICROSWITCH -45° ROTATION	-45° UMDREHUNG ENDSCHALTER
<b>SQ4</b>	FINECORSА CARRO INDIETRO	MICROSWITCH CARRIAGE BACK	ENDSCHALTER WAGEN ZURÜCK
<b>SQ5</b>	FINECORSА TESTA ALTA	MICROSWITCH HEAD / BOW UP	ENDSCHALTER BÜGEL NACH OBEN
<b>SQ6</b>	FINECORSА TESTA BASSA	MICROSWITCH HEAD / BOW DOWN	ENDSCHALTER BÜGEL NACH UNTEN
<b>SQ7</b>	MICROINTERRUTTORE FINE MATERIALE	MICROSWITCH BAR END	ENDSCHALTER STANGENENDE
<b>SQ70</b>	PROSSIMITI PRESENZA PEZZO	MICROSWITCH PIECE PRESENCE	STÜCKANWESENDEHEIT ENDSCHALTER
<b>SQ8</b>	MICROINTERRUTTORE MANIGLIONE	MICROSWITCH HANDLE	ENDSCHALTER GRIFF
<b>SQ9</b>	MICROINTERRUTTORE START MANUALE	MICROSWITCH MANUAL START	ENDSCHALTER MANUELL START
<b>T</b>	TEMPORIZZATORE	TIMER	ZEITGEBER
<b>TC1</b>	TRASFORMATORE	TRANSFORMER	TRANSFORMATOR
<b>TR</b>	TERMOSTATO	THERMOSTAT	THERMOSTAT
<b>TR</b>	TERMORESISTENZA	THERMO-RESISTANCE	THERMO-WIDERSTAND
<b>YV1</b>	ELETTROVALVOLA CARRO AVANTI LENTO	CARRIAGE SLOW FORWARD MOTION SOLENOID VALVE	ELEKTROVENTIL WAGEN LANGSAM VORNE
<b>YV10</b>	ELETTROVALVOLA SBLOCCAGGIO MANUALE	MANUAL UNLOCKING SOLENOID VALVE	ELEKTROVENTIL MANUELL AUFHEBUNG
<b>YV11</b>	ELETTROVALVOLA DETENSIONAMENTO LAMA	UNTIGHTNING BLADE SOLENOID VALVE	SAEGBLATT ENTSPANNUNG MAGNETVENTIL
<b>YV11</b>	ELETTROVALVOLA DETENSIONAMENTO LAMA	BLADE DETENSIONING SOLENOID VALVE	ELETRISCHESVETIL SAEGBLATT ENSPANNUNG
<b>YV12</b>	ELETTROVALVOLA TENSIONAMENTO LAMA	TIGHTNING BLADE SOLENOID VALVE	SAEGBLATT SPANNUNG MAGNETVENTIL
<b>YV12</b>	ELETTROVALVOLA TENSIONAMENTO LAMA	BLADE TENSIONING SOLENOID VALVE	ELETRISCHESVENTIL SAEGBLATT SPANNUNG
<b>YV15</b>	ELETTROVALVOLA SOLLEVATORE CARICATORE	LOADER LIFT SOLENOID VALVE	LADEMAGAZIN HEBEWERK ELEKTROVENTIL
<b>YV16</b>	ELETTROVALVOLA MORSA CARICATORE	LOADER VICE SOLENOID VALVE	LADEMAGAZINSPANNSTOCK ELEKTROVENTIL
<b>YV18</b>	ELETTROVALVOLA GUIDA PEZZO AVANTI	GUIDE-PIECE FORWARD VALVE	ELEKTROVENTIL ZAUN NACH VORNE
<b>YV19</b>	ELETTROVALVOLA GUIDA PEZZO INDIETRO	GUIDE-PIECE BACKWARD VALVE	ELEKTROVENTIL HINTEREN ZAUN
<b>YV2</b>	ELETTROVALVOLA CARRO INDIETRO LENTO	CARRIAGE SLOW BACK MOTION SOLENOID VALVE	ELEKTROVENTIL WAGEN LANGSAM ZURÜCK
<b>YV20</b>	SBLOCCAGGIO ROTAZIONE	ROTATION UNLOCK	UMDREHUNG LOSMACHEN

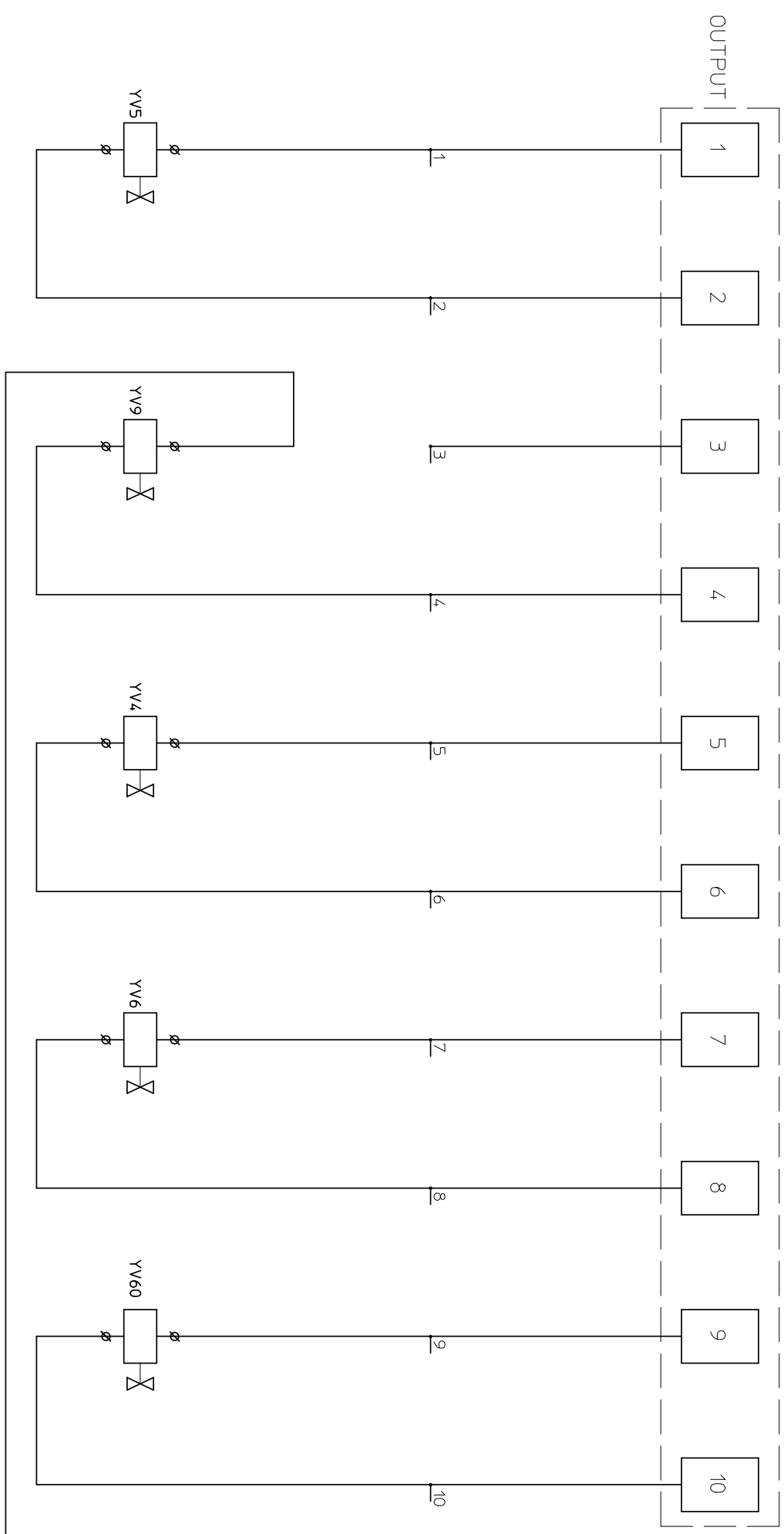


YV3	ELETTROVALVOLA MORSA MOBILE	MOVABLE VICE SOLENOID VALVE	ELEKTROVENTIL BEWEGLICHER SPANNSTOCK
YV30	ELETTROVALVOLA MORSA MOBILE CHIUDE	CLOSE MOVABLE VICE VALVE	BEW. SPANNSTOCK SCHLIEß ELEKTROVENTIL
YV30P	ELETTROVALVOLA PRESSINO CARRO	CARRIAGE VICE SOLENOID VALVE	ELETRISCHESVENTIL SCHRAUBSTOCK VORSCHUBWAGEN
YV31	ELETTROVALVOLA RUOTA ARCO LENTO	SLOW BOW ROTATION SOLENOID VALVE	LANGSAM SÄGEARMUMDREHUNG ELEKTROVENTIL
YV37	ELETTROVALVOLA RUOTA DX	ROTATION LEFTWARDS SOLENOID VALVE	UMDREHUNG LINKS ELEKTROVENTIL
YV38	ELETTROVALVOLA RUOTA SX	ROTATION RIGHTWARDS SOLENOID VALVE	UMDREHUNG RECHTS ELEKTROVENTIL
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
YV60P	ELETTROVALVOLA PRESSINO FISSO	FIXED VICESOLENOID VALVE	ELETRISCHESVENTIL FESTSCHRAUBSTOCK
YV61	ELETTROVALVOLA SPAZZOLA	BRUSH VALVE	BÜRSTE ELEKTROVENTIL
YV62	ELETTROVALVOLA ATTIVAZIONE 2a POMPA OLIO	SECOND OIL PUMP	ZWEITE ÖLPUMPE EIN ELEKTROVENTIL
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	MIKROSPRÜHEINRICHTUNG ELEKTROVENTIL



Rev./Modificato	C./Appr.	Data	Descrizione
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Modello: SEGHETTI			
Macchina: SPECIAL 320-330-411 MS			
N° Schema /			
Firma <i>Andrea Scremin</i>			Revisione
Contr./Appr.			Foglio
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			di
			7



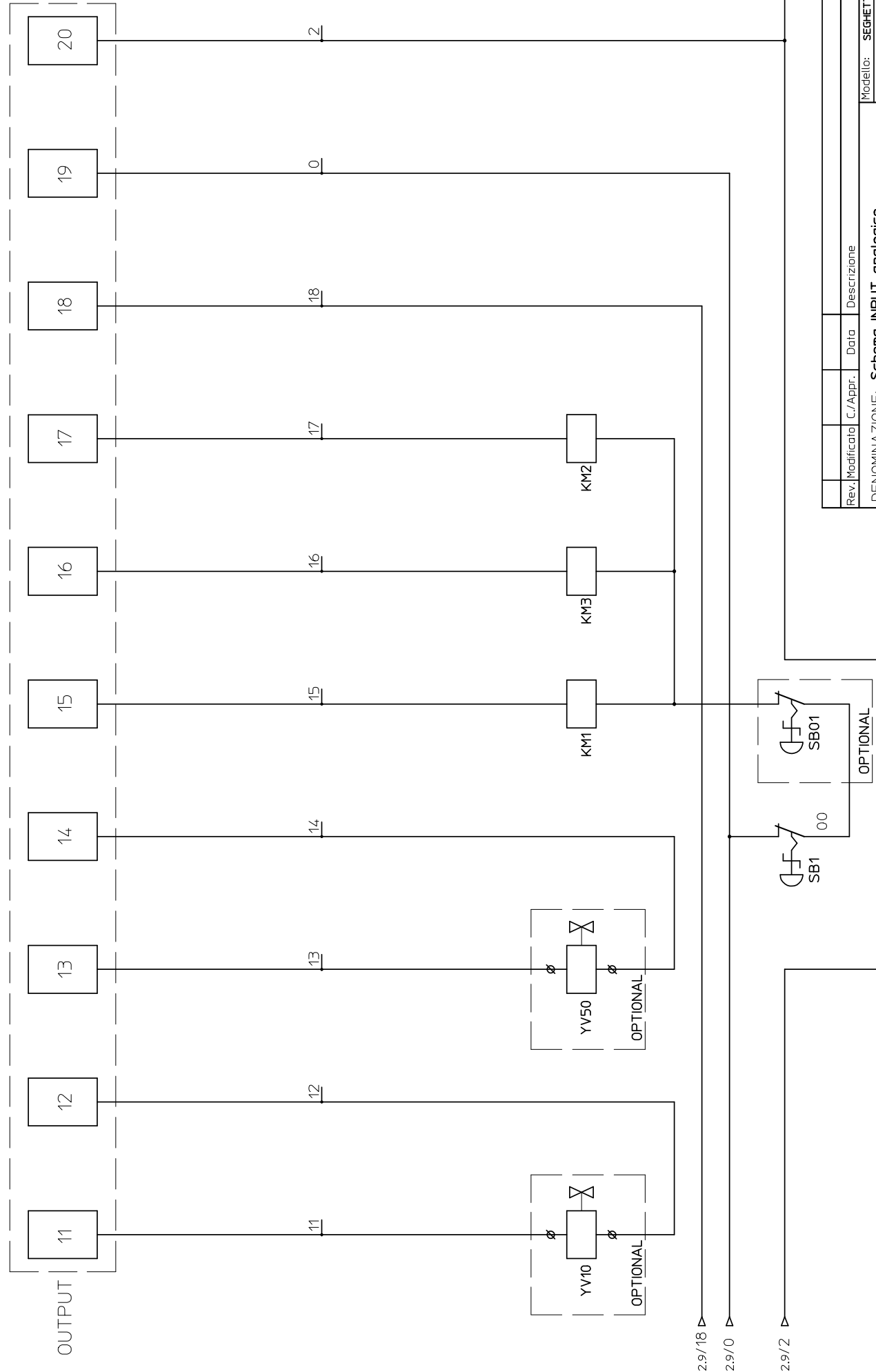


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Firma	Andrea Scrinin			
Cont./Appr.	Schio			
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Revisione				
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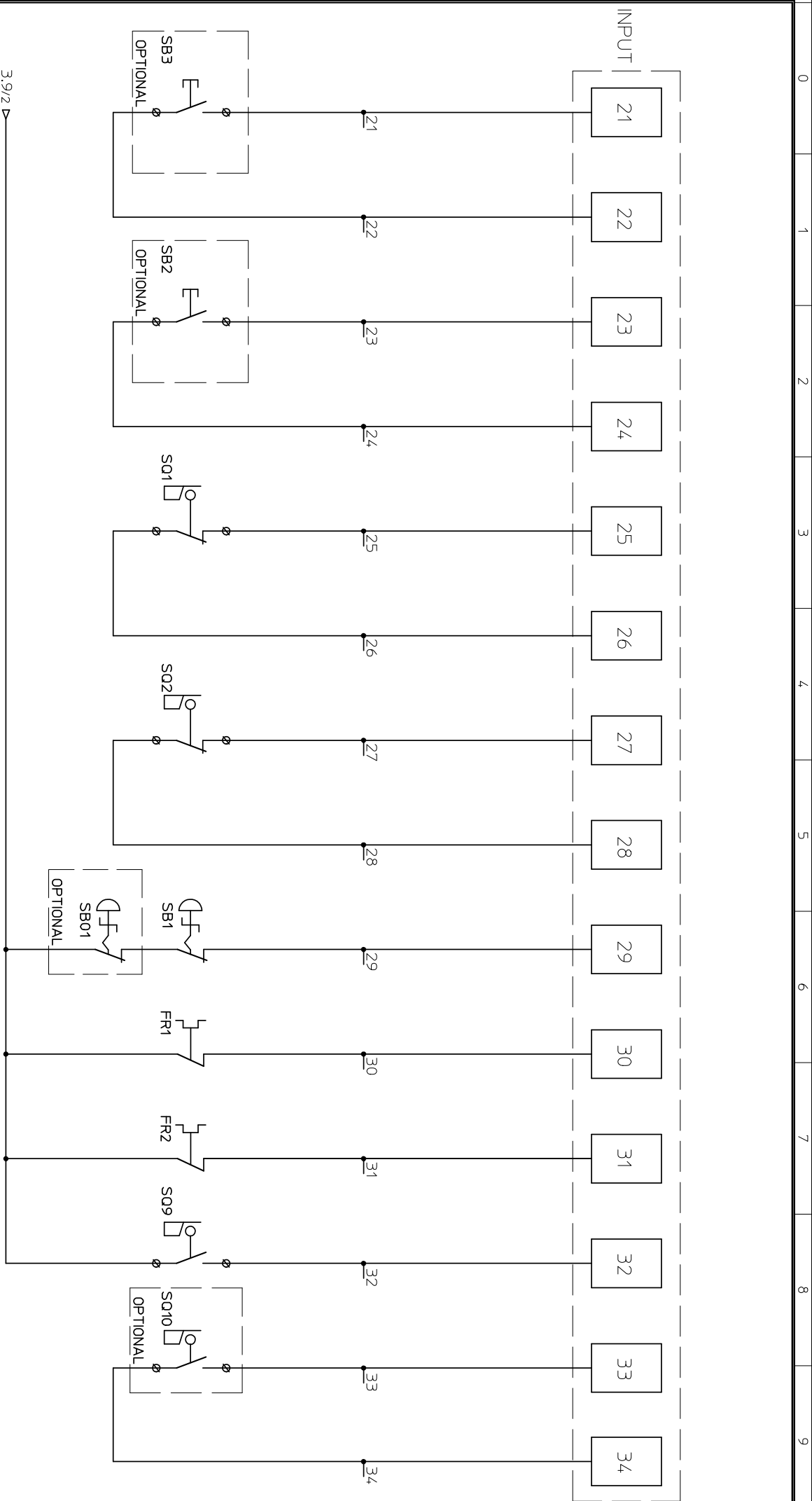




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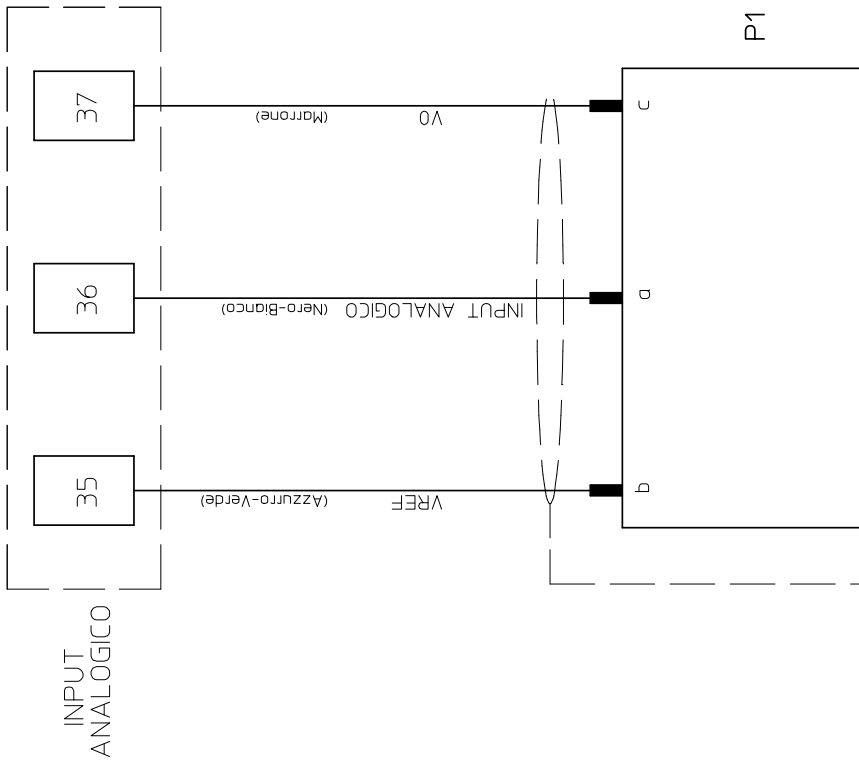
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Rev.	Modificato	C./Appr.	Data	Descrizione
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Cont./Appr.				
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N° Schema				
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Revisione				
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**MACC**  
Schio

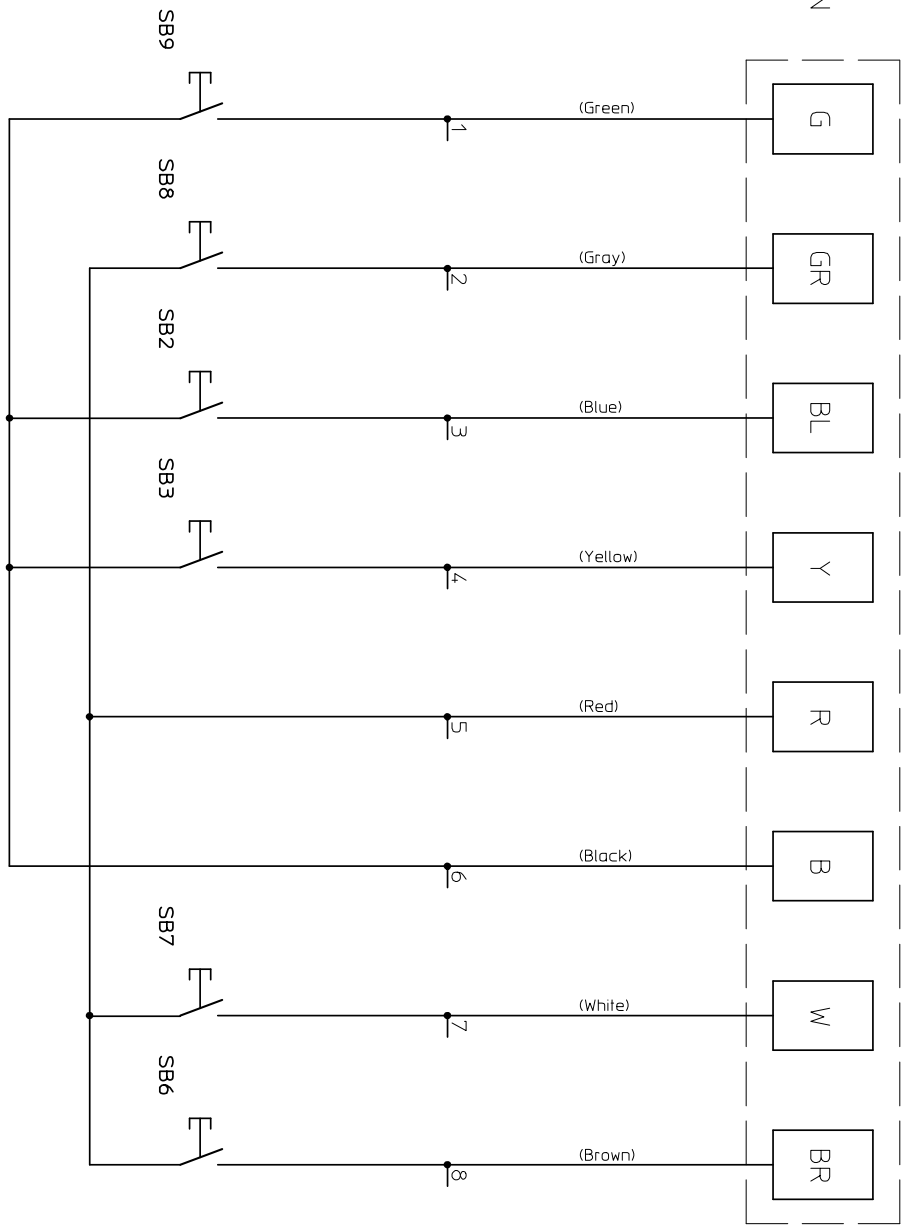


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Rev./Modificato	C./Appr.	Data	Descrizione
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Firma	<i>Andrea Scremin</i>		
Contr./Appr.			
		Revisione	Foglio
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PUSH-BUTTON

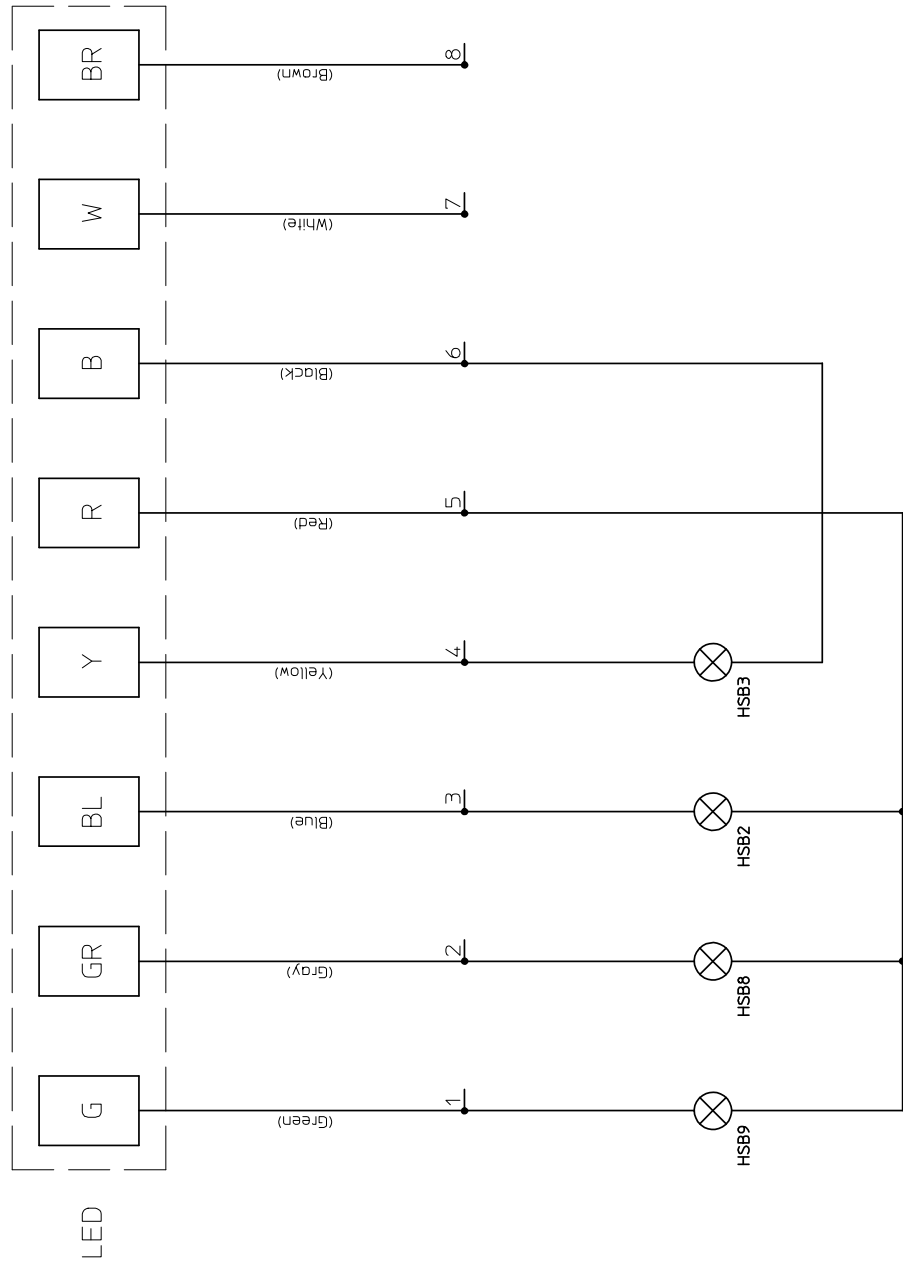


LEGENDA COLORI	
RED	R
GREEN	G
BLACK	B
GRAY	GR
WHITE	W
BLUE	BL
BROWN	BR
YELLOW	Y

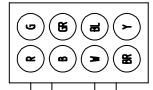
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N° Schema	/		
Revisione	/		
Foglio	6	di	7






LEGENDA COLORI	
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GREEN	G
BLACK	B
GRAY	GR
WHITE	W
BLUE	BL
BROWN	BR
YELLOW	Y
CAVETTI SEZIONE 0.25mm <sup>2</sup>	



Rev./Modificato	C./Appr.	Data	Descrizione
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Data	11/07/2019		
Firma	Andrea Scremin		
Contr./Appr.			
		7	di 7



CONTROLLATO IL:	07/05/2018
DA:	
REV.:	0

SPECIAL 411 MS