

**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 415 DI**

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

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

**2026**







**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 415 DI**

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

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

**2026**

- É CONFORME ALLA DIRETTIVA MACCHINE 2006/42/CE , ALLA DIRETTIVA COMPATIBILITÀ 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/EG , 2014/30/UE RICHTLINIE ZUR ELEKTROMAGNETISCHEN KOMPATIBILITÄT , 2014/35/UE 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 TENSIÓN .
- 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,**

**2026**





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 запрещено использовать машину 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 ATEMNASKE ZUM SCHUTZ DER ATEMWEGE ZU TRAGEN. BITTE DAS GERÄT NUR IN GUT BELÜFTETEN RÄUMEN ANWENDEN.

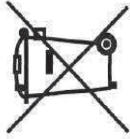
**SYSTÈME DE MICRO-LUBRIFICATION:** SI LE SYSTÈME EST INSTALLÉ SUR LA MACHINE, IL EST IMPÉRATIF DE PORTER UN MASQUE DE PROTECTION POUR PROTÉGER LES VOIES RESPIRATOIRES. LES LOCAUX DOIVENT ÉGALEMENT ÊTRE VENTILÉS.

**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.

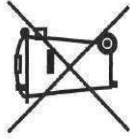
**СИСТЕМА МИКРОСМАЗКИ:** ЕСЛИ СИСТЕМА УСТАНОВЛЕНА, ОБЯЗАТЕЛЬНО ИСПОЛЬЗОВАТЬ ЗАЩИТНУЮ МАСКУ И ПРОВЕТРИВАТЬ ПОМЕЩЕНИЕ.





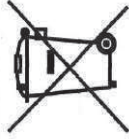
**Felhasználható az Európai Unió és egyéb európai országok szelektív hulladékgyűjtési rendszereiben)**

Ez a szimbólum a készülékek és az elektronikus készülékek hulladékként való elválogatására szolgál. Kérjük, hogy az elektronikus és elektronikai hulladékok gyűjtésére kijelölt gyűjtőhelyen adja le. A felesleges vált termékek helyes kezelésével segít megelőzni a környezeti és az emberi egészséggel kapcsolatos károsodást, mely bekövetkezhetne, ha nem követi a hulladék kezelés helyes módját. Az anyagok újrahasznosítása segít a természeti erőforrások megőrzésében. A termék újrahasznosítása érdekében további információért forduljon a leghelyi illetékesekhez, a helyi hulladékgyűjtő szolgáltatóhoz vagy ahhoz az üzlethez, ahol a terméket megvásárolta.



**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 odevzdán na určené místo, určené k recyklaci elektrických výrobků a zařízení. Dodržetím této instrukce zabráníte negativním dopadům 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 svého výrobku kontaktujte, prosím, místní orgány státní správy, místní firmu zabezpečující likvidaci a sběr odpadu nebo prodejnu, v níž jste výrobek zakoupili.



**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 zaistíte správne zneškodnenie, pomôžete zabrániť potenciálnemu negatívnemu vplyvu na životné prostredie a ľudské zdravie, ktoré by v opačnom prípade hrozil pri nesprávnom nakladaní s týmto výrobkom. Recyklácia materiálov pomáha 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.



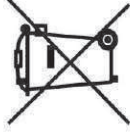
**Eski Elektrikli & Elektronik Ekipmanların Atılması (Avrupa Birliği'nde ve aynı toplama sistemlerine sahip diğer Avrupa ülkelerinde uygulanır)**

Ürün veya ambalajı üzerinde bulunan bu sembol, bu ürünü bir ev atığı olarak muamele görmemesi gerektirir. Ürünü, elektrikli ve elektronik ekipmanların geri dönüşümü için mevucut olan uygun toplama noktasına teslim edilmelidir. Bu ürünün doğru şekilde atılması sağlanarak, bu türüne yanlış müdahale edilmemesi konusunda ortaya çıkabilecek ve çevre ile insan sağlığı üzerinde olumsuz etkide bulunabilecek durumların önlenmesine yardımcı olursunuz. Malzemelerin geri dönüşümü, doğal kaynakları korumamıza yardımcı olacaktır. Bu ürünü geri dönüşümüyle ilgili daha fazla bilgi için, lütfen sınırladığınız bölgenin yerel ofisine, evsel atıklar toplama servisimize veya bu ürünü satın aldığınız mağazaya temasa geçin.



**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 njegovi embalaži nahaja ta simbol, pomeni, da z izdelkom ne smete ravnati enako kot z drugimi gospodarskimi 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 odlojanja gospodarskih odpadkov ali v trgovini, kjer ste izdelek kupili. Odpadno električno in elektronsko opremo lahko oddate brezplačno tudi distributerju 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.



**Käytössä polstetun sähkö- ja elektronikkalaitteen hävitys (Euroopan Unioni ja muiden Euroopan maiden keräysjärjestelmät)**

Symboli, joka on merkitty Tuotteeseen tai sen pakkaukseen, osoittaa, että tätä tuotetta ei saa käsitellä talousjätteenä. Tuote on sen sijaan luovutettava sopivaan sähkö- ja elektronikkalaitteiden kierrätyksessä huolehtivaan keräysjärjestelmään. Tämän tuotteen asianmukaisen hävittämisen varmistamisella autetaan estämään sen mahdolliset ympäristöön ja terveyteen kohdistuvat haittavaikutukset, joita voi aiheutua muusta tapauksesta tämän tuotteen epäasianmukaista jätekäsittelyä. Materiaalien kierrätys säästää luonnonvaroja. Tarkempia tietoja tämän tuotteen kierrättämisestä saa paikallisesta kunnantoinnistosta.



**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 upassende vis. Genbrug af materialer er med at bevare naturens ressourcer. Yderligere oplysninger om genbrug af produktet fås på kommunen, på genbrugscentralen eller i den butik, hvor du købte produktet.



**Tratamento de Equipamentos Eléctricos e Electrónicos no final da sua vida útil (Aplicável na 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. Assegurando-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 contribuirá 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.



**Αποκοπή Παλαιού Ηλεκτρικού & Ηλεκτρονικού Εξοπλισμού(ισχύει 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 πεταχτεί μαζί με τα οικιακά απορρίμματα αλλά πρέπει να παραδοθεί σε ένα κατάλληλο σημείο συλλογής ηλεκτρονικού και ηλεκτρονικού 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 καθαριότητας 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 aiderez 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 déchetterie 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)

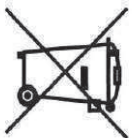
Das Symbol auf dem Produkt oder seiner Verpackung weist darauf hin, dass dieses Produkt nicht als normaler Haushaltsabfall zu behandeln ist, sondern an einer Annahmestelle für das Recycling von elektrischen und elektronischen Geräten abgegeben werden muss. Durch Ihren Beitrag zum korrekten Entsorgung 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)

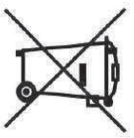
Este símbolo en su equipo o su embalaje indica que el presente producto no puede ser tratado como residuos domésticos normales, sino que deben entregarse en el correspondiente punto de recogida de equipos eléctricos y electrónicos. Asegurándose de que este producto es desechado correctamente, Ud. está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

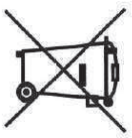
Het symbool op het product of op de verpakking wijst erop dat dit product niet als huishoudafval mag worden behandeld. Het moet echter naar een plaats worden gebracht waar elektrische en elektronische apparatuur wordt gerecycled. Als u ervoor zorgt dat dit product op de correcte manier wordt verwijderd, 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 recyden 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)

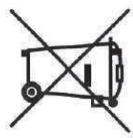
Symboolen på produkten eller emballaget anger att produkten inte får hanteras som hushållsavfall. Den skall i stället lämnas in på uppsamlingsplats för återvinning av el- och elektronikkomponenter. Genom att säkerställa att produkten hanteras på rätt sätt bidrar du till att förebygga eventuellt negativa 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 sophämningsföretag eller affären där du köpte varan.



## Italiano

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

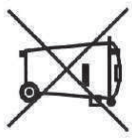
Questo simbolo sul prodotto o sulla confezione indica che il prodotto non deve essere considerato come un normale rifiuto domestico, ma deve invece essere consegnato ad un punto di raccolta appropriato per il riciclo di apparecchi elettrici ed elettronici. Assicurandovi che questo prodotto sia smaltito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



## Język polski

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

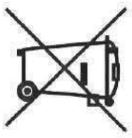
Taki symbol na produkcie lub jego opakowaniu oznacza, że produkt nie może być traktowany jako odpad komunalny, lecz powinno się go dostarczyć do odpowiedniego punktu zbiórki sprzętu elektrycznego i elektronicznego, w celu recyklingu. Poprzez upewnienie się, że dyspozycja dotychczas produktu jest poprawna, zapobiega się potencjalnym negatywnym wpływom na środowisko oraz zdrowiu 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 miasta 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 avfallsforvaltning av dette produktet. Gjenvinning av disse materialene vil hjelpe til med å ta vare på våre naturressurser. For mer informasjon om gjenvinning av dette produktet, kan du kontakte lokale myndigheter.



# INSTRUCTION MANUAL SPECIAL-415-DI

## INTRODUCTION

This operation instruction manual conforms to the requirements of the Machine Directive 2006/42/EEC and later amendments . 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 1 and can be used to help the location of specific information .

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

## INFORMATION ABOUT MAINTENANCE ASSISTANCE

### 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 .

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Safety processes and prevention from work accidents

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  - Blade guide
  - Drive and cutting speed
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### F.) Laying off – Dismantling

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## ENCLOSURES

| ENCL. TYPE | DESCRIPTION                                      | ENCL No. |
|------------|--------------------------------------------------|----------|
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## INTRODUCTION

Band saw machine for metal SPECIAL-415-DI is semi-automatic machine for cutting of all metal materials . It is especially used for material cutting in workshops where it is necessary to cut elements in the angles  $+60^{\circ} \div -60^{\circ}$  in semi-automatic regime .

The machine is provided with a special mobile vice , whose position changes during linear feeding before or after the blade ( perpendicular position ) , enabling rotation on both sides of the arm and consequently the cutting both on the right and on the left .

SPECIAL-415-DI is used to cut ferrous materials , steel alloys , cast iron , copper , aluminium alloys .

**It is not allowed to cut wood , meat , bones , glass , all materials based on wood . If you want to cut materials , which are not written in our tables , be informed by producer or seller of machine .**

It is necessary to use proper parameters of machine while cutting . In order to achieve optimum machine capacity and to keep tolerance of rectangularity , it is necessary to correctly install machine and to select blade , cut feeding and cooling liquid .

In this manual for operation , there are written all data necessary for successful operation and service .

## MACHINE INSTALLATION AND PUTTING IT INTO OPERATION

- 1.) The machine is installed on horizontal and fixed support plate which will have loading capacity for machine , special accessories and maximum weight of cut material .
- 2.) Required space for machine installation – see Encl.2 .
- 3.) Pay attention to minimum distance – min. 1 m from walls respectively from other machines .
- 4.) The operating temperature of the room , in which the machine will work , can be in the range of  $0^{\circ} \div 40^{\circ} \text{C}$  .
- 5.) Pedestal and roller conveyors ( if required ) must be in horizontal position in order to keep rectangularity of cut . At setting up , the water level must be placed on the putting area of vice .
- 6.) The electric connection of the machine must be performed by qualified personnel , in a dry environment .
- 7.) Before putting machine into operation , it is necessary to fit all the required accessories .
- 8.) Plates used for conducting coolant liquid away , which are removed during transportation , must be assembled to machine pedestal using the special screws .
- 9.) Before first switch on of the machine
  - a. Check for correct blade movement ( an arrow on the motor pulley indicates the rotation direction ) .
  - b. Tension the band by rotating the handwheel ( 029/03 ) to the end of stroke ( Encl.3 ) .  
Always remember to loosen the tension on the belt when work is terminated using the handwheel to prevent it from being stretched and weakened .
  - c. Check for the amount and the supply of the coolant .
  - d. Check for correct placing and fixing of the material which will be cut
  - e. Check for the distance between the blade and the material to be cut ( the blade mustn't be in contact with the material to be cut at machine switch on ) .

### Use cautions :

---

It is necessary to keep following instruction during machine operation :

- It is prohibited to catch the moving blade
- It is prohibited to catch the moving brush for scraping filings .
- Do not open the safety covers during operation .

# SAFETY PROCESSES AND PREVENTION FROM WORK ACCIDENTS

## GENERAL REGULATIONS

Before installation , to be informed about safety measures .

- 1.) Installation , operation , service and repair of machine should be performed by qualified staff .
- 2.) It is required to know general work skills and to keep valid safety conditions by operating staff .
- 3.) Staff must be equipped with safety means and protective glasses , earpieces , gloves . Wear and footwear must be suitable for this operation .
- 4.) The personnel in charge of the use of the machine is responsible for its maintenance and for the efficiency of the security devices .
- 5.) These safety measures are general and are valid for machines and equipments of various types .

Except general measures for machines and their parts , these special safety conditions are also valid for :

- a. Operating instructions of machine must be still available to operating staff , operation and service must be performed according to this operating book .
- b. Non – keeping measures during machine operation or parts damage of our production direct to guaranty invalidity .

Producer is not responsible for damage or accidents which were caused by non-keeping safety measures or insufficient care during manipulation , operation , service , or repair of machine and at the connecting of machine by non-qualified staff .

### 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 ISO12100 Safety of machinery . Basic concepts , general principles for design , basic methodology .
- EN ISO 16093 Safety of machinery . Basic concepts and general principles for design . Specifications and technical principles .
- EN ISO 13850 Safety of machinery . Emergency stop devices , functional aspects - design principles .
- EN ISO 4413-14 Safety requirements related to systems and components for hydraulic and pneumatic transmissions .
- EN 14118 Safety of machinery . Prevention of unexpected start-up .
- EN 14119 Interlocking devices associated with guards — Principles for design and selection .
- EN 60204-1 Safety of machinery . Electrical equipment of machines . General requirements .
- EN 13857 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 Electromagnetic compatibility - Requirements for household appliances , electric tools and similar apparatus .
- EN 61000-3-2 Electromagnetic compatibility – Limits for harmonic current emissions .
- EN 61000-3-11 Electromagnetic compatibility ( EMC ) – Limitation of voltage changes , voltage fluctuations and flicker in public low-voltage supply systems .
- EN 55032 Electromagnetic compatibility of multimedia equipment - Emission requirements
- EN 61000-4-2 Electromagnetic compatibility ( EMC ) Part 4 : Testing and measurement techniques Section 2 : Electrostatic discharge immunity test . EMC Base Publication .
- EN 61000-4-4 Electromagnetic compatibility ( EMC ) Part 4-4 : Testing and measurement techniques - Electrical fast transient/burst immunity test .
- EN 61000-4-6 Electromagnetic compatibility ( EMC ) Part 4 : Testing and measurement techniques . Section 6 : Immunity to conducted disturbances , induced by radio-frequency fields .

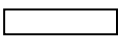
### Low Voltage Directive 2014/35/UE .

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 ) .

## A. technical description and operation

### 1.) SPECIAL 415 DI BASIC TECHNICAL PARAMETERS

|              | Ø   |  |  |
|--------------|-----|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| 90°          | 350 | 330                                                                               | 330x400                                                                             |
| 45° destra   | 310 | 280                                                                               | 150x320                                                                             |
| 45° sinistra | 310 | 280                                                                               | 150x320                                                                             |
| 60° destra   | 215 | 200                                                                               | 100x220                                                                             |
| 60° sinistra | 200 | 190                                                                               | 100x210                                                                             |

| Three phase power supply              |                     |
|---------------------------------------|---------------------|
| Motor power                           | 2.2 kW              |
| Motor revolutions                     | 900 rpm             |
| Cutting speed ( INVERTER )            | 22 - 73 m/1'        |
| Control unit motor                    | 0.55 kW             |
| Electric pump                         | 0.06 kW             |
| Fly wheel dimensions                  | Ø420 mm             |
| Blade size ( length x width x thick ) | 4270 x 34 x 1,1 mm  |
| Cutting thickness                     | 1,5 mm              |
| Cutting angle                         | 60° dx – 60° sx     |
| Material clamping vice max opening    | 420 mm              |
| Jaws height                           | 200 mm              |
| Jaws length                           | 185 mm              |
| Bed height                            | 760 mm              |
| Coolant tank capacity                 | 30 liters           |
| Machine weight                        | 7650 N ~ ( 780 kg ) |

-Machine with digital device displaying degrees ( 138/45 ) .

Special-415-DI with inverter

Blade speed :

| Posizione | 0  | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9/10  |
|-----------|----|----|----|----|----|----|----|----|----|-------|
| metri/1'  | 22 | 25 | 30 | 36 | 41 | 47 | 53 | 60 | 65 | 72/73 |

### 2.) CUTTING OPERATION

Before starting cutting operations , if the inclination of the cut is not as desired , correct it or change it by loosening the special lever ( 049/47 Encl.4 ) and rotating the arc until the desired position is reached . Read the number of degrees corresponding to the position on the display ( 138/45 Encl.3 ) located on the control panel .

When the desired number of degrees has been reached , remember to fix the lever ( 049/47 Encl.4 ) in position .

Turn on the machine using the main switch ( 002/90 Encl.3 ) and rotate the speed regulator ( 098/90 Encl.3 ) 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 make a cut after storing the high and low limit desired , start the cutting cycle by pressing the Start D .

Before performing this last operation , make sure the descent regulator ( 100/38 Encl.3 ) is closed , in order to prevent the blade from descending too quickly onto the piece to be cut .

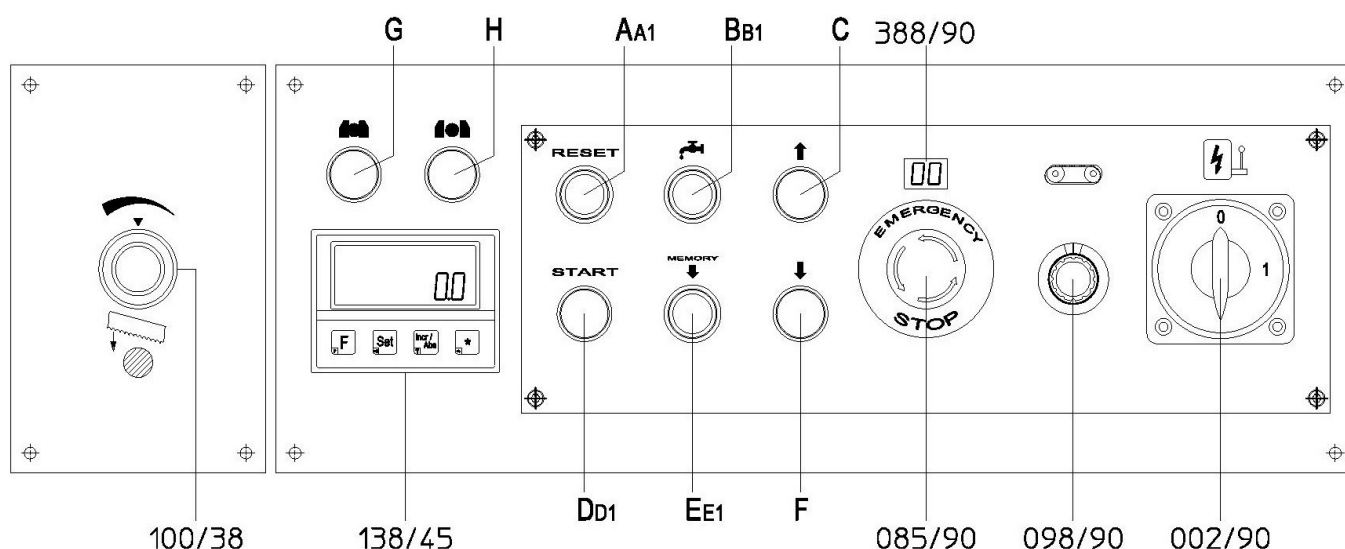
Position the part on a work surface . Press the button Start "D" to start a cut cycle . The blade starts to rotate , closes the vice and the bow starts to go down . By means of the adjuster ( 100/38 Encl.3 ) , it is possible change the descent speed the arc .

Once hitting the low limit initially set , the saw frame goes back to the cutting start position , the blade stops .

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 .



- 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
- G. close vice button
- H. open vice button
- A1. RESET button led
- B1. motorized cooling pump button led
- D1. START button led
- E1. bow bottom limit setting key led
- F1. bow down button led
- 002/90 ON-OFF main switch
- 098/90 potentiometer belt speed variation
- 085/90 emergency button
- 388/90 alarms and counting display
- 100/38 bow down speed regulator
- 168/45 cutting angle viewer

## SMD 300 Error codes with display

E0 = Blade tension switch

E1 = Blade guards

E7 = Pots/switches together

E3 = E-Stop

E4 = Thermal , oil pump

E5 = thermal Blade

This display also shows a piece counter , so after every cut made the counter will increase by 1 every pass . to reset the piece counter press and hold the reset button and the screen will return to 0 .

This new display is from November 2021 but please check the machine type and facia as not fitted to all Semi/auto machines .

### 3.) BLADES

#### BLADE TENSION

Tension the band by rotating the handwheel ( 029/03 ) to the end of stroke ( Encl.3 ) . Always remember to loosen the tension on the band when work is terminated using the handwheel to prevent it from being stretched and weakened .

REQUIRED BLADE TENSION : is set up by the manufacturer .

#### BLADE GUIDE

The blocks of the blade guide are fastened on two holders . There are placed cocks with regulation of coolant liquid on blade guide . The blade is ensured by bearing and widia pads .

The distance of the mobile blade guide is adjustable according to the dimensions of the material to be cut .

During blade installation , it is important that the blade guides are not damaged .

#### DRIVE AND CUTTING SPEED

The blade is driven by a gear-motor ( 100-A/42 Encl.3 ) positioned on the machine bow , provided with 2-speed inverter to select the required cutting speed .

#### REGULATION OF CUTTING SPEED .

The blade speed is selected by the potentiometer ( 098/90 Encl.3 ) on the control panel . Choose the speed depending on the type of material that must be cut .

In case of broken blade , its drive stops in automatic regime .

#### CUTTING PRESSURE

During test , cutting pressure is set up on the average value and can be changed only when processing specific types of steel .

Bow descent speed is adjusted by the regulator ( 100/38 Encl.3 ) located on the control panel .

#### **CAUTION :**

**When descent speed is high it is necessary to use blades with large teeth to avoid teeth breakage!**

#### BLADE PRESSURE ( FEED )

Blade pressure ( feed ) into cut is committed by cutting pressure which is changed through the regulator on the panel .

Regulator ( 100/38 Encl.3 ) :

- with value set to "0" the blade must not descent ,
- at setting up "10" we obtain the largest feed which is used while cutting solid materials by blade with large teeth .

#### **MAIN RULE :**

**With close teeth and thin profile , use a low bow descent speed .**

#### COOLING

The coolant is sent through the pump piping ( 091/90 Encl.3 ) towards the blades through cocks ( 030/96 Encl.4 ) and then to the blade . The pump is located on the coolant tank ( 002/43 Encl.3 ) located on the bed on the rear of the machine .

Concentration mixture of a coolant liquid and water is in the relation 1 : 20 ( at normal operation ) .

#### **CAUTION :**

**Cast iron is cut without cooling !**

#### SELECTION OF PROPER BLADE

The selection of a proper blade depending on the material is important for the cutting power . It can be difficult because there is a large number of blades of different quality and various teeth .

We recommend to use BIMETALL blades . They are high quality blades , which enable to cut all the materials without frequent changes of blade . Its quality is much higher than standard blades .

In certain cases , it is advantageous to use blade marked SPECIAL , especially in case when there is frequent damage of teeth that is caused by attendance mistakes .

If you want to use all possibilities of machine , e. g. when you work larger amount of the same material and cross section , you should choose optimum teeth , tooth shape , and the best quality of blade .

## SHAPE OF TEETH

Standard ( N ) – angle of tooth inclination 0° . It is suitable for cutting cast iron and steel materials .

Rack ( K ) – angle of tooth 10° . It is suitable for brittle materials , e. g. non-iron metals and less hard steel .

Combinated teeth ( C ) – variable teeth with different angles and shapes, suitable for all materials even in the case of frequent changes of profile .

## BLADE QUALITY

SPECIAL type – blade suitable for all materials included alloy steel . It is not used in cases of rustless and acid – proof steel .  
Average life – 20,000 to 30,000 cm<sup>2</sup> type C 45 .

BIMETALL type M 42 – blade suitable for all the materials indicated in the chart . We recommend its use to cut average amounts of material 50,000 to 70,000 cm<sup>2</sup>, C 45 .

**TABLE FOR TEETH SELECTION**

| Thickness of material                   | < 2     | 2-10    | 10-25   | 25-50   | 50-80 | 80-120       | < 120 |
|-----------------------------------------|---------|---------|---------|---------|-------|--------------|-------|
| <b>Worked material</b>                  |         |         |         |         |       |              |       |
| Free machining steel                    | 22 N    | 18 N    | 10 N    | 8-7 N   | 6 N/H | 4 N/H        | 3 H   |
| Structural steel to St 42               | 22 N    | 18 N    | 14-10 N | 8-7 N   | 6 N/H | 4 N/H<br>3 H | 3 H   |
| Structural steel to St 70 , noble steel | 30-22 N | 22-18 N | 14-10 N | 8-7 N   | 6 N/H | 4 N/H        | 3 H   |
| Unalloy tool steel                      | 30-22 N | 18 N    | 14 N    | 8 N     | 8-7 N | 6-4 N/H      | 4 N/H |
| Alloy tool steel                        | 30-22 N | 18 N    | 14 N    | 8 N     | 8-7 N | 6-4 N/H      | 4 N/H |
| Cast iron                               | -       | 14 N    | 14-10 N | 10-8 N  | 8-7 N | 6-4 N        | 4 N   |
| Grey cast iron                          | -       | 14 N    | 14-10 N | 10-8 N  | 8-7 N | 6-4 N        | 4 N   |
| Aluminium , aluminium alloy             | 18 N    | 10 N    | 8-6 N/H | 6-4 N/H | 3 S/H | 3 S/H        | 3 S/H |
| Bronze                                  | 18 N    | 14 N    | 10 N    | 8 N     | 6 H   | 4-3 H        | 3 H/S |
| Brass                                   | 18 N    | 14 N    | 10 N    | 8 N     | 6 N/H | 4 H<br>3 H/S | 3 H/S |
| Cooper                                  | 18 N    | 14 N    | 10 N    | 8 N     | 6N/H  | 4 H<br>3 H/S | 3 H/S |

## BLADE CHANGE

Before putting a new blade into operation , it is necessary to make a run in . During running in , lower the bow slowly . Running in must be made by cutting material up to a diameter of 300 mm in about 15 mins .

Changing a blade is a dangerous operation because its sharp teeth are not provided with protections . Workers must take care for work that has to be performed by qualified staff .

### CAUTION !

Change of blade requires worker should have prescribed work facilities and adequate covers .

Main machine switch must be switched off and insured against switch on !

### PROCESS OF BLADE CHANGE

1. Bow upstroke and fixing ( about 15° from the horizontal position ) .
2. Switch off main switch .
3. Remove cut material from the machine .
4. Open bow guard ( 003/47 Encl.3 ) and their lockings , remove the blade guide guard 067/43 , 1085/43 e 086/43 Encl.3.
5. Release as much as possible the blade guide by slackening the blade tightening handwheel ( 029/03 Encl.3 ) .
6. Press the blade so that it leaves the guide and take it out from the machine , holding it by both hands .
7. Take blade into hands , make “rolling movement” and fasten blade by wire .
8. Check the correct rotation direction of the blade . The cutting edges of the teeth should be in the direction of the blade movement .
9. If it is not like this turn blade “on back” .
10. Insert the blade into the machine . ( pass the blade through the guides and then through the driving pulleys ) .

### CAUTION !

Bottom part of blade ( without teeth ) should lay on driving pulleys .

### CAUTION !

Danger of accident ! Hold the blade by both hands as far as possible from yourself and slowly turn it . Do not leave blade from hands in any case !

### CAUTION !

Replace all safety guards and fix them securely in position .

## MATERIAL FIXING

Vice ( 004/47 Encl.5 ) is used for placing and fixing of cut material. Material is placed in front jaw ( 123/43 Encl.5 ) .

Press button ( G ) to activate the hydraulic cylinder which clamps the material , press button ( H ) to release the material the material from the vice .

Especially during repeated cutting cycles , you need to adjust the opening distance of the clamp by pressing the corresponding button .

Vice is manually moved on linear guide to left or right dependent on arm deflection at angle cuts different to 0° . In this chosen position, vice is fixed by lever ( 049/47 Encl.4 ) .

### CAUTION !

Take care for the fact that material must be strongly fixed after each change of jaw position . Thin profiles should be adequately fixed not to be deformed .

Take care for keeping safety regulations while fixing and working materials .

## INSTRUCTIONS TOWARDS CORRECT CUTTING

### TOOTH DEFORMATION

Each tooth of blade can tolerate certain pressure in dependence of blade quality . If you overcome this measure , tooth will break .

It can be a moment of fulfilling space among teeth by greater amount of filings .

Fulfilling space among teeth ( filings ) is possible if material with big cross section is worked by blade with small pitch of teeth ( e.g. diameter 100 mm , teeth 10 , and feed 6 ) .

In some cases , material with big cross section can be cut by soft blade , but feed should be less ( e.g. 0,5 or 1 ) .

Damage of teeth happens with large amount of filings if thin profiles are worked by blade which has too narrow teeth , or if there is set up large feed .

Frequent damage of blades causes not keeping of operating instructions .

### BLADE LIFE

Damage of teeth is caused :

- Unsuitable cutting speed .
- Unsuitable selection of blade quality for worked material .
- not using of cooling or using of insufficient cooling .

### MATERIAL WITH VARIOUS CROSS SECTION

While cutting some types of material , e.g. profile bars and tubes , cross section changes . In this case , we recommend you to use blade with combined teeth . The number of teeth for blade length is possible to determine according to the table ( see under ) . Feed must be smaller than „3“ and during often change of profile , feed must be much more smaller to avoid tooth damage .

## TEETH FOR CUTTING TUBES AND PROFILES



| D (mm)  | < 40                                 | 80   | 100  | 150  | 200  | 300  |
|---------|--------------------------------------|------|------|------|------|------|
| Ep (mm) | Number of teeth/inch ( about 25 mm ) |      |      |      |      |      |
|         | 8/12                                 | 8/12 | 8/12 | 8/12 | 6/10 | 6/10 |
| 8       | 8/12                                 | 6/10 | 6/10 | 6/10 | 6/10 | 4/6  |
| 12      | 6/10                                 | 4/6  | 4/6  | 4/6  | 4/6  | 3/4  |
| 15      |                                      | 4/6  | 4/6  | 3/4  | 3/4  | 3/4  |
| 20      |                                      | 4/6  | 4/6  | 3/4  | 3/4  | 3/4  |
| 30      |                                      | 3/4  | 3/4  | 3/4  | 2/3  | 2/3  |
| 50      |                                      |      |      | 2/3  | 2/3  | 2/3  |

## 4.) ELECTRIC EQUIPMENT

1. Voltage system :
  - 3 F – 50 Hz , 400V electric drives
  - Low tension 24V controls
2. Electro-motors are protected from progressive overload by thermal relay and from short-circuit by fuse .
3. Appliances are connected from system 3F – 50 Hz , 400V with earthing protection .
4. Installed power :
  - overall installed power P = 2.8 kW~
  - max current I<sub>n</sub> = 9 A ~

## **B. MACHINE SERVICE AND CLEANING**

It is necessary to follow those commands during machine service and cleaning :

- 1.) Main switch must be switched off and protected from chance switch on .
- 2.) All work must be performed by qualified staff or controlled by them .
- 3.) Before switching on machine , check if all persons making service are out of dangerous zone .

### **COOLANT LIQUID**

Check daily level of coolant liquid that does not have to decrease below 1/3 . If this happens , fulfil tank immediately !

### **HYDRAULIC EQUIPMENT**

During service and repairs , it is necessary not to have hydraulic mechanism under pressure . Check level of hydraulic oil every day during the first week of operation . Later , once a week . Fulfil oil until maximum level during each checking .

Change of oil :

- first time after working of 50 to 100 hours .
- Then , after every 200 hours of operation , at least 1 x year .

It is necessary to keep cleanness during service and repairs !

Use oil ENI ARNICA 32 or corresponding equivalent of other brands .

### **MACHINE CASING**

On wearing surfaces or surfaces with non-attendances coating , there must be oiled surface . Oiling is perform during machine cleaning .

Regular cleaning of machine and early removal of filings is condition of good machine efficiency .

Filings is necessary to remove from the zone of driving mechanism , from the inside part of the bow protection and tank with coolant liquid .

### **CAUTION :**

Do not use inflammable or evaporated substances as cleaners !

Protect electric parts meaning motor , switch , electric box etc. from humidity !

Do not perform welding works or other repairs during high temperatures in the nearest of oil systems and electric supply ! Oil remainders from tank is necessary to clean by cleaners before this type of work .

It is necessary to switch off machines from electric network during idle time !

### **EQUIPMENT AND PRIMARY COMPONENTS**

Components and equipment are constructed for band saw machine – models SPECIAL-415-DI . Usage of foreign components on those machines can negatively influence their operation . In those case , producer is not responsible for possible failures .

## **C. TRANSPORT AND PACKING**

Machine is transported by assistance of high-lifting vehicle or crane .

During transport , machine must be screwed on palette .

During transport by crane use cables hooked to the four lifting pegs Encl.2 .

Except general valid transportation regulations , it is necessary to follow these instructions :

- Machine is transported to customer with out-assembled covers for conducting away liquid . Those are strongly fixed to machine itself during transport .
- Machine is transported to customer in adequate package .
- Wrapping material corresponds to local regulations
- The parts of the machine with raw surface ( without coating ) are provided with a slight layer of oil which must not be removed .
- The coolant tank is empty during transport .
- Any overhanging part or spare part are not fitted and are transported separately .
- Take care for projecting parts of machine , e. g. grip and handwheel .

**There must not be put power lifting system on machine arm !**

## **D. 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 .**

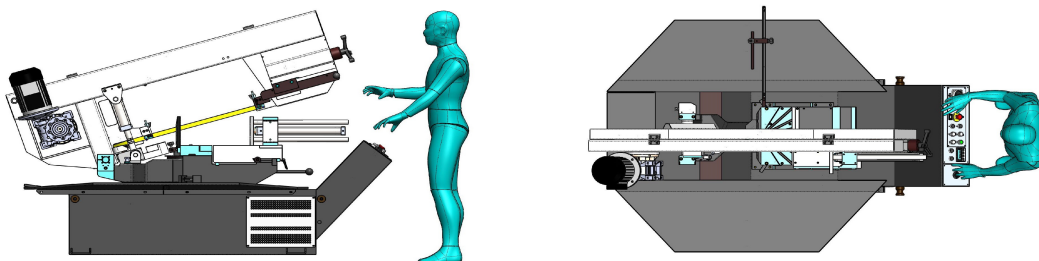
E. Pay attention to environmental conditions . Do not expose the machine to rain ; to not use it in damp environments , position the machine on a clean dry floor that has no oil or grease stains .

F. Before using the machine , the operator should make sure that all tools and service spanners used for maintenance or adjustment have been removed .

## 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 .

**POSITION OF THE OPERATOR :** The position by the machine must correspond to the following figure .

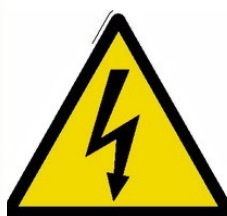


## MEASURES TO PREVENT RESIDUAL RISKS

- 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

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



|                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                 |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <p>• NON RIMUOVERE I DISPOSITIVI E LE PROTEZIONI DI SICUREZZA!<br/>• BESCHERMKAPPEN EN BEVEILIGINGEN MOGEN NIET VERWIJDERD WORDEN!<br/>• DO NOT REMOVE THE SAFETY DEVICES AND GUARDS!<br/>• DIE SCHUTZVORRICHTUNGEN NICHT ENTFERNEN!<br/>• NE PAS ENLEVER LES DISPOSITIFS ET LES PROTECTIONS DE SECURITE!<br/>• NO QUITAR LOS DISPOSITIVOS Y LAS PROTECCIONES DE SEGURIDAD!</p> |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|



**COLLEGATO  
CONNECTED  
230 VOLT**

**COLLEGATO  
CONNECTED  
400 VOLT**

## **E. INFORMATION ON ENVIRONMENTAL NOISE**

An environmental noise test carried out on the SPECIAL-415-DI band saw machine , identical to the machine to which these operation instructions refer , has given the following results :

Acoustic radiation pressure

1.  $L_{Aek} = 83.2 \text{ dB ( A )}$  .
2.  $L_{peak} = 93.2 \text{ dB}$  ( the maximum allowed 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 .

## **F. LAYING OFF – DISMANTLING**

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 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 , dust-free place .

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 :

| <b>Steels</b>   | <b>Electric and electronic components</b>         | <b>Light alloy</b> | <b>Cast iron</b> | <b>Copper bronze</b> | <b>Plastics and rubber</b> |
|-----------------|---------------------------------------------------|--------------------|------------------|----------------------|----------------------------|
| Screws          | Component list                                    | Motor casing       | Structural parts | Motor winding        | Hydraulic tubes            |
| Rollers         | Push buttons and control systems ( relays, etc. ) |                    |                  | Transformers         | Seals                      |
| Springs         |                                                   |                    |                  | Bushings             | Seals                      |
| Cylinders       |                                                   |                    |                  |                      |                            |
| Flanges, Pivots |                                                   |                    |                  |                      |                            |
| Base            |                                                   |                    |                  |                      |                            |
| Tank            |                                                   |                    |                  |                      |                            |
| Guards          |                                                   |                    |                  |                      |                            |

Exhausted oil disposal must be performed in compliance with Directives 87/101/EC .

Electric components disposal must be performed in compliance with Directives UE 2015/863 .



## Montageanleitung

### Positionsanzeige

(Original)

## Mounting instructions

### Position Indicator

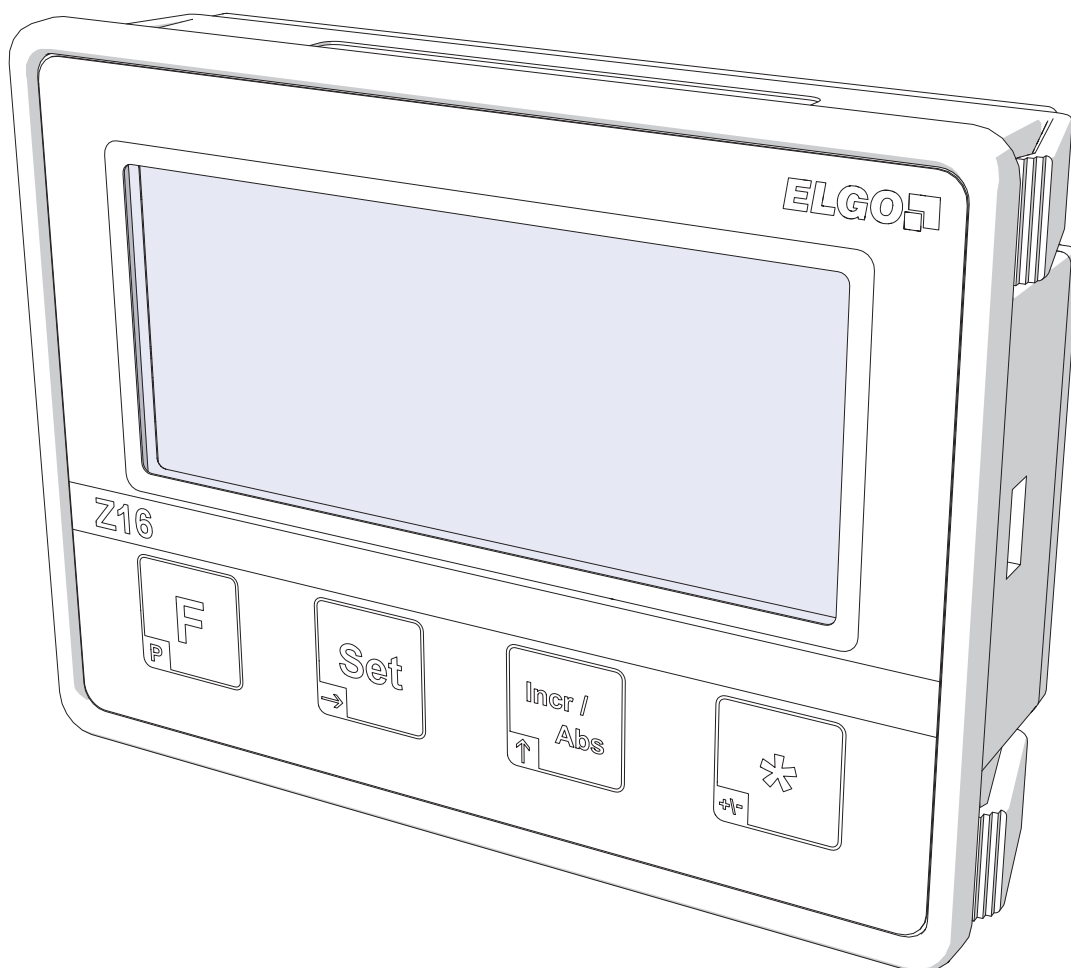
(Translation of the original mounting instructions)

## Instructions de montage

### Indicateur de position

(Traduction du manuel de montage original)

# IZ16E



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FL-9496 Balzers

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# 1 Inhalt / Content

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## 2 Technische Daten / Technical data

### 2.1 Anzeige / Indicator

|                                                   |                                                                                                                               |
|---------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| LCD:                                              | 1 x 7 Zählerdekaden / Counter decades<br>mit Vorzeichen, Batteriestatus / Battery Status, Maßeinheiten / Units of measurement |
| Maßeinheiten / Units of Measurement:              | mm, m, Inch, °                                                                                                                |
| Blickwinkel / Viewing direction:                  | 12 o'clock                                                                                                                    |
| Versorgungsspannung / Supply voltage:             | Integriertes Batteriefach / Integrated battery 1 x C or external 1,5V...3,0V                                                  |
| Verpolungsschutz / Reverse polarity protection:   | Nein / No                                                                                                                     |
| Verfahrgeschwindigkeit / Movement speed:          | max. 4m/s                                                                                                                     |
| Betriebstemperatur / Operating temp.:             | 0°C ... + 50°C                                                                                                                |
| Lagertemperatur / Storage temperature:            | -10°C ... +60°C                                                                                                               |
| Luftfeuchtigkeit / Humidity:                      | max. 95 %, nicht kondensierend / Non-condensing                                                                               |
| Frontplattenausbruch / Front panel cut-out:       | B x H = $93^{0/+0.8} \times 67^{0/+0.6}$ mm                                                                                   |
| Frontplattendicke / Front panel thickness         | 1.00mm – 3.50mm                                                                                                               |
| Schutzklasse Frontseite / Protection class front: | IP 54 (im eingebauten Zustand / In installed condition)                                                                       |
| Schutzklasse Rückseite / Protection class back:   | IP 40                                                                                                                         |
| Schutzklasse Sensor / Protection class sensor     | IP 67                                                                                                                         |

### 2.2 Magnetband / Magnetic tape

|                                                           |                                                                        |
|-----------------------------------------------------------|------------------------------------------------------------------------|
| Betriebstemperatur / Operation temperature                | 0° C ... + 50° C                                                       |
| Genauigkeit bei 20° C in mm / Accuracy at 20° C in mm     | +/- (0,025+0,02 x L) L = Messlänge in Meter/Measuring length in meters |
| Ausdehnungskoeffizient / Lengths coefficient of expansion | $\alpha = 16 \times 10^{-6} \times 1/K$                                |



### 3 Zu diesem Dokument / About this Document / A propos de ce document

#### 3.1 Funktion / Function / Fonction

|   |                                                                                                                                                                                                                                                                                                                                                                        |
|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| D | Die vorliegende Montageanleitung liefert die erforderlichen Informationen für die Montage, die Inbetriebnahme, den sicheren Betrieb sowie die Demontage des IZ16E. Die Montageanleitung ist stets in einem leserlichen Zustand und zugänglich aufzubewahren.                                                                                                           |
| E | These mounting instructions provide all the information you need for mounting, commissioning, the safe operation and disassembly of the IZ16E. The mounting instructions must be available in a legible condition and complete version in the vicinity of the device.                                                                                                  |
| F | Le présent mode d'emploi contient les informations nécessaires au montage, au raccordement, à la mise en service, à un fonctionnement sûr ainsi que des remarques importantes concernant le démontage du IZ16E. Il est important de conserver le mode d'emploi (en condition lisible) près de l'appareil, accessible à tout moment comme partie intégrante du produit. |

#### 3.2 Zielgruppe: autorisiertes Fachpersonal / Target group: Authorized Qualified Personnel / Groupe cible: personnel spécialisé autorisé

|   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|   | Sämtliche in dieser Montageanleitung beschriebenen Handhabungen dürfen nur durch ausgebildetes und vom Anlagenbetreiber autorisiertes Fachpersonal durchgeführt werden.                                                                                                                                                                                                                                                                                                             |
| D | <p>Installieren und nehmen Sie das Gerät nur dann in Betrieb, wenn Sie die Montageanleitung gelesen und verstanden haben. Machen Sie sich mit den geltenden Vorschriften über Arbeitssicherheit und Unfallverhütung vertraut.</p> <p>Auswahl und Einbau der Geräte sowie ihre steuerungstechnische Einbindung sind an eine qualifizierte Kenntnis der einschlägigen Gesetze und normativen Anforderungen durch den Maschinenhersteller geknüpft.</p>                                |
|   | All operations described in these mounting instructions must be carried out only by trained specialist personnel, authorized by the plant operator.                                                                                                                                                                                                                                                                                                                                 |
| E | <p>Please make sure that you have read and understood these mounting instructions and that you know all applicable prescriptions regarding occupational safety and accident prevention prior to installation and commissioning.</p> <p>Selection and installation of the devices as well as their embedding into the controlling system require qualified knowledge of the applicable laws and normative requirements on the part of the machine manufacturer.</p>                  |
|   | Uniquement du personnel qualifié, spécialisé et habilité par l'exploitant de l'installation est autorisé à effectuer les instructions décrites dans ce mode d'emploi.                                                                                                                                                                                                                                                                                                               |
| F | <p>Il est important de lire et de comprendre le mode d'emploi avant l'installation et la mise en service du composant. Vous devez également connaître les prescriptions en vigueur concernant la sécurité du travail et la prévention des accidents.</p> <p>Pour le choix et le montage des composants ainsi que leur intégration dans le circuit de commande, le constructeur de machines doit observer les exigences des directives harmonisées et des règlements en vigueur.</p> |

#### 3.3 Verwendete Symbolik / Explanation of the Symbols used / Symboles utilisés

|   |                                                                                    |                                                                                                                                                                                                                                                                              |
|---|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| D |  | <p><b>Vorsicht:</b><br/>Bei Nichtbeachten dieses Warnhinweises können Störungen oder Fehlfunktionen die Folge sein.</p> <p><b>Warnung:</b><br/>Bei Nichtbeachten dieses Warnhinweises können ein Personenschaden und/oder ein Schaden an der Maschine die Folge sein.</p>    |
| E |  | <p><b>Caution:</b><br/>Failure to comply with this warning notice could lead to interferences or malfunctions.</p> <p><b>Warning:</b><br/>Failure to comply with this warning notice could lead to physical injury and/or damage to the machine.</p>                         |
| F |  | <p><b>Attention:</b><br/>Le non-respect de cette recommandation peut entraîner des pannes ou des défauts de fonctionnement.</p> <p><b>Avertissement:</b><br/>Le non-respect de cette instruction peut entraîner des blessures physiques et/ou des dommages à la machine.</p> |

### 3.4 Bestimmungsmäßiger Gebrauch / Appropriate Use / Définition de l'application

|   |                                                                                         |
|---|-----------------------------------------------------------------------------------------|
| D | Der IZ16E darf nur für durch den Hersteller zugelassene Anwendungen eingesetzt werden.  |
| E | The IZ16E must be exclusively used for the applications authorized by the manufacturer. |
| F | L' IZ16E ne doit être utilisé que pour les applications autorisées par le fabricant.    |

### 3.5 Allgemeine Sicherheitshinweise / General Safety Instructions / Consignes de sécurité générales

|   |                                                                                                                                                                                                                                                                                                                                                                                                                                |
|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| D | <p>Die Sicherheitshinweise der Montageanleitung sowie landesspezifische Installations-, Sicherheits- und Unfallverhütungsvorschriften sind zu beachten.</p> <p>Alle Angaben ohne Gewähr. Änderungen, die dem technischen Fortschritt dienen, vorbehalten.</p>                                                                                                                                                                  |
| E | <p>The user must observe the safety instructions in these mounting instructions, the country-specific installation standards as well as all applicable safety regulations and accident prevention rules.</p> <p>The information contained in these mounting instructions manual is provided without liability. Subject to technical modifications.</p>                                                                         |
| F | <p>Les consignes de sécurité de ce mode d'emploi, les standards d'installation spécifiques au pays concerné ainsi que les dispositions de sécurité et les règles de prévention d'accidents sont à observer.</p> <p>Les caractéristiques et recommandations figurant dans ce document sont uniquement données à titre d'information et sans engagement contractuel de notre part. Sous réserve de modifications techniques.</p> |

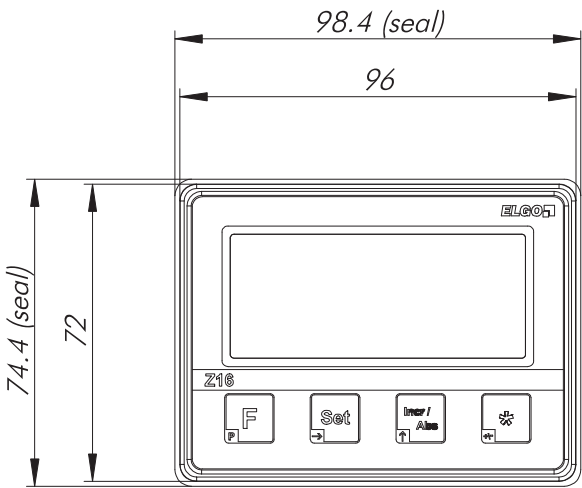
### 3.6 Haftungsausschluss / Exclusion of Liability / Clause de non-responsabilité

|   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| D | <p>Für Schäden und Betriebsstörungen, die durch Montagefehler oder Nichtbeachtung dieser Montageanleitung entstehen, wird keine Haftung übernommen. Für Schäden, die aus der Verwendung von nicht durch den Hersteller freigegebenen Ersatz- oder Zubehörteilen resultieren, ist jede weitere Haftung des Herstellers ausgeschlossen.</p> <p>Jegliche eigenmächtige Reparaturen, Umbauten und Veränderungen sind aus Sicherheitsgründen nicht gestattet und schließen eine Haftung des Herstellers für daraus resultierende Schäden aus.</p>                                                           |
| E | <p>We shall accept no liability for damage and malfunctions resulting from incorrect mounting or failure to comply with these mounting instructions. The manufacturer shall accept no liability for damage resulting from the use of unauthorized spare parts or accessories.</p> <p>For safety reasons, invasive work on the device as well as arbitrary repairs, conversions and modifications to the device are strictly forbidden; the manufacturer shall accept no liability for damage resulting from such invasive work, arbitrary repairs, conversions and/or modifications to the device.</p> |
| F | <p>Nous déclinons les dommages et défaillances issus d'un montage erroné ou de la non-observation des instructions de ce mode d'emploi. Nous déclinons également la responsabilité pour les dommages résultant de l'utilisation d'accessoires ou de pièces de rechange non autorisés par le fabricant.</p> <p>Pour des raisons de sécurité, il est strictement interdit de transformer ou modifier un dispositif de sécurité de sa propre initiative. Le fabricant ne peut être tenu responsable pour les dommages y découlant.</p>                                                                    |

## 4 Abmessungen / Dimensions

### 4.1 Anzeige / Indicator

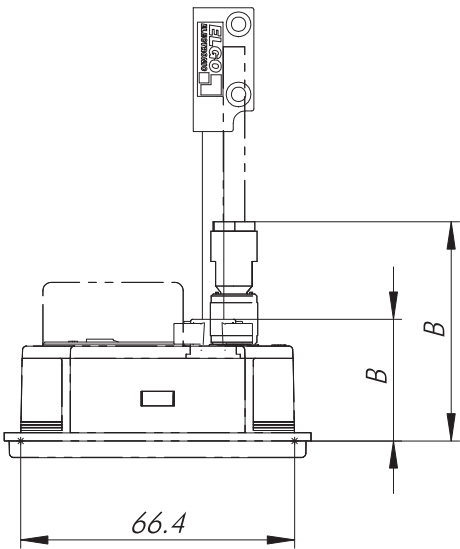
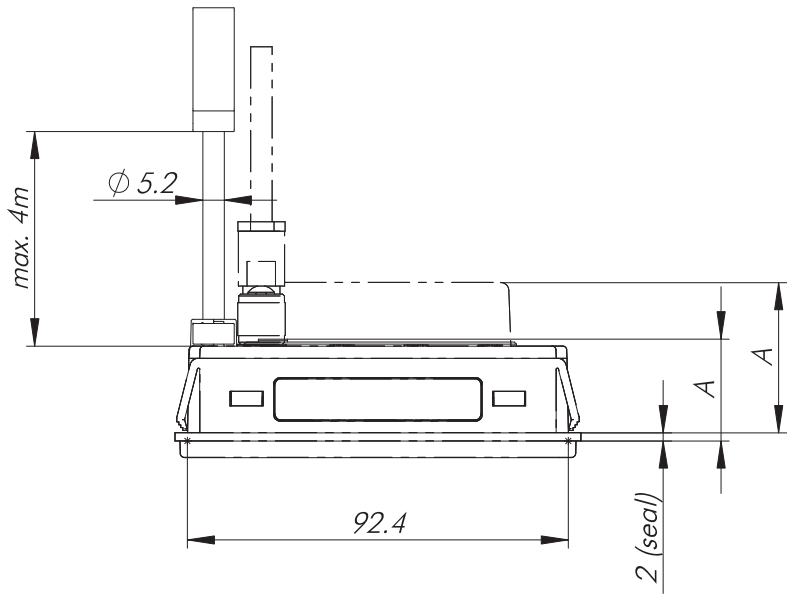
Angaben in mm / Specifications in mm



Schalttafel ausbruch / Front panel cut-out  
93 <sup>-0/+0.7</sup> x 67 <sup>-0/+0.6</sup>

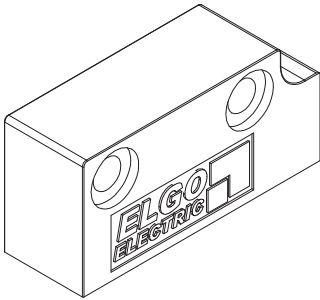
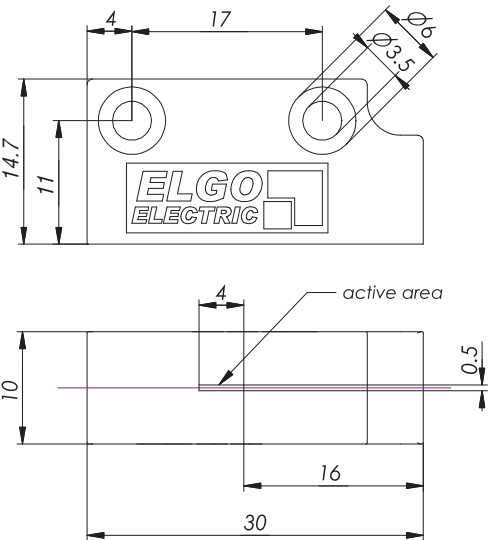
Frontplattendicke / Front panel thickness  
1.00, 1.50, 2.00, 2.50  
Ohne Dichtung / Without seal  
2.50 , 3.00, 3.50

| Typ<br>Type        | A (mm) | B (mm) |
|--------------------|--------|--------|
| IZ16E-XXX-1-XX,X-0 | 37     | 30     |
| IZ16E-XXX-1-XX,X-1 | 37     | 53     |
| IZ16E-XXX-6-XX,X-0 | 25     | 30     |
| IZ16E-XXX-6-XX,X-1 | 25     | 53     |



### 4.2 Sensor / Sensor

Angaben in mm / Specifications in mm



Wichtig: Der Abstand zwischen Sensor und Magnetband muss kleiner sein als siehe Tabelle.

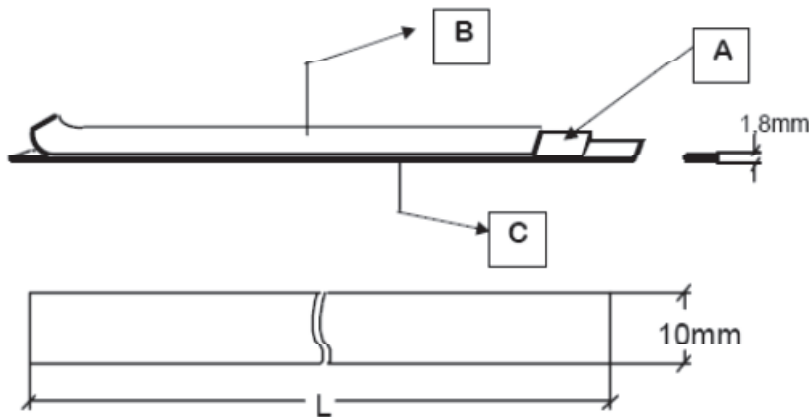
Important: The distance between the sensor and the tape has to be smaller than see table.

| Typ<br>Type        | Abstand Sensor / Band<br>Distance sensor / Band |
|--------------------|-------------------------------------------------|
| IZ16E-XXX-X-XX,X-X | max.0,8mm                                       |

## 5 Installation Magnetband / Installation magnetic tape

### 5.1 MB20-xx-10-1-R

Das Magnetband besteht aus drei Komponenten. / The magnetic tape consists of three contents:



A: Magnetband / Magnetic tape

B: Dieses Stahlband schützt das Kunststoffband vor mechanischen Schäden und stellt gleichzeitig einen magnetischen Rückschluss dar. / This magnetic flexible steel tape protects the rubber tape against mechanical defects and represents a magnetic feedback simultaneously.

C: Diese Komponente dient zum mechanischen Schutz für das Kunststoffband und muss nach der Montage auf das magnetische Kunststoffband aufgeklebt werden. / This steel tape is used for the mechanical protection of the rubber tape and must be attached on the magnetic rubber tape after assembly.

### 5.2 Verarbeitungshinweise für das Kleben von Magnetbändern / Processing hints for the sticking of magnetic tapes

Die mitgelieferten Klebebänder kleben am besten auf sauberen, trockenen und glatten Oberflächen. Die Festigkeit der Verklebung ist direkt abhängig von dem Kontakt, den der Klebstoff zu den verklebenden Oberflächen entwickelt. Ein hoher Andruck sorgt für einen guten Oberflächenkontakt.

The provided sticky tapes stick best on clean, dry and plain surfaces.

The stability of the adhesion is directly depending on the contact, which the adhesive develops to the surfaces stuck together. High pressure results in a good surface contact.



## 6 Aufbau und Funktion / Structure and function

### 6.1 Betriebsmodus / Operation mode

|                                            |                                                                                   |                                                                                                                                                                                 |
|--------------------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Referenzwert /<br>Reference Value          |  | Gleichzeitig betätigen /<br>Press simultaneous                                                                                                                                  |
| Kettenmaß / absolut<br>Relative / absolute |  | Umschaltung Inkremental – Absolut /<br>Switch over absolute to incremental dimension                                                                                            |
| Versatzmaß /<br>Offset                     |  | Diese Taste aktiviert die einstellbaren Versatzmaße /<br>Switches over between the adjustable Tool-Offsets                                                                      |
| Inch-Anzeige /<br>Inch display             |  | Umschaltung im Inch-Betrieb<br>*Bruchdarstellung (1/64, 1/32, 1/16), Dezimal 0,001<br>Switch over to Inch operation mode<br>*Fraction display (1/64, 1/32, 1/16), Decimal 0,001 |

### 6.2 Parameterebene / Parameter level

|                                                       |                                                                                     |                                                                     |
|-------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------|
| Parameterebene aktivieren /<br>Change to program mode |    | Für ca. 3 Sekunden betätigen /<br>Hold 3 sec. to enter program mode |
| Parameter anwählen /<br>Select parameter              |   | Taste einmal betätigen /<br>Press one time                          |
| Dekaden Anwahl /<br>Select decade                     |  | Taste einmal betätigen /<br>Press one time                          |
| Dekade erhöhen /<br>Increase decade                   |  | Taste einmal betätigen /<br>Press one time                          |
| Vorzeichenwechsel /<br>Change of sign                 |  | Taste einmal betätigen /<br>Press one time                          |
| Parameterebene verlassen /<br>Back to normal mode     |  | Für ca. 3 Sekunden betätigen /<br>Hold 3 sec. to exit program mode  |

### 6.3 Parameterliste / Parameter list

| Parameter / Parameter | Spezifikation / Specification                                                                                                                                                                                                                                                                                               | Default |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| P01: A                | Systemkonfiguration / Configuration:<br>A = 0: positive Zählrichtung / Positive counting direction<br>A = 1: negative Zählrichtung / Negative counting direction                                                                                                                                                            | 0       |
| P02: A                | Anzeigemodus / Display mode:<br>A = 0: mm - Anzeige Symbol „ mm“ / Display „ mm “<br>A = 1: Inch - Anzeige Symbol „ Inch“ / Display „ Inch “<br>A = 2: mm - Anzeige Symbol „ m“ / Display „ m “<br>A = 3: mm - Anzeige Symbol „ ° “ / Display „ ° “<br>A = 4: mm - Anzeige kein Symbol / Display no symbol                  | 0       |
| P03: A                | Dezimalpunkt / Decimal point (0...4)                                                                                                                                                                                                                                                                                        | 2       |
| P05: ABC              | Tastensperre / Key lock:<br>A: "SET" (0 = nicht aktiv / not active) – (1 = aktiv / active)<br>B: "Incr/Abs" (0 = nicht aktiv / not active) – (1 = aktiv / active)<br>C: "*" (0 = nicht aktiv / not active) – (1 = aktiv / active)                                                                                           | 000     |
| P07: A                | Basisauflösung / Resolution:<br>A = 0: Auflösung / Resolution 0,01mm<br>A = 1: Auflösung / Resolution 0,1mm                                                                                                                                                                                                                 | 0       |
| P08:                  | Multiplikationsfaktor / Pulse scaling factor (0,0001...9,9999)                                                                                                                                                                                                                                                              | 1,0000  |
| P09:                  | Referenzwert / Reference value (-999999,9 ... + 999999,9)                                                                                                                                                                                                                                                                   | 0,0     |
| P10:                  | Versatzmaß 1 / Offset 1 (-999999,9 ... + 999999,9)                                                                                                                                                                                                                                                                          | 0,0     |
| P11:                  | Versatzmaß 2 / Offset 2 (-999999,9 ... + 999999,9)                                                                                                                                                                                                                                                                          | 0,0     |
| P12:                  | Versatzmaß 3 / Offset 3 (-999999,9 ... + 999999,9)                                                                                                                                                                                                                                                                          | 0,0     |
| P13: A                | Konfiguration Versatzmaße / Configuration offsets (0...3)<br>A = 0: Versatzmaße nicht auswählbar / Offsets not selectable<br>A = 1: Versatzmaß 1 auswählbar / Offset 1 selectable<br>A = 2: Versatzmaß 1 & 2 auswählbar / Offsets 1 & 2 selectable<br>A = 3: Versatzmaß 1 & 2 & 3 auswählbar / Offsets 1 & 2 & 3 selectable | 3       |
| P90: A                | (ohne Funktion)                                                                                                                                                                                                                                                                                                             | 0       |
| P99:                  | Software Version                                                                                                                                                                                                                                                                                                            | X.XX    |

### 6.4 Kalibrierung / Calibration

Der Sensor muss sich auf dem Magnetband befinden! /

The sensor must be on the magnetic tape!

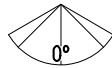
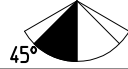
➔ Gerät ausschalten / Switch off the device

➔  Gleichzeitig mit Tastenbetätigung Gerät wieder einschalten /  
Hold the button during switching on the device

➔ Hierbei wird die Sensorkalibrierung ausgelöst und „CAL 0“ angezeigt. Sensor langsam in eine Richtung auf dem Magnetband bewegen. Nach Abschluss der Kalibrierung (Anzeige „CAL 0“ ... „CAL 4“) befindet sich die Anzeige wieder im Normalmodus.

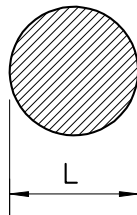
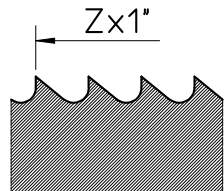
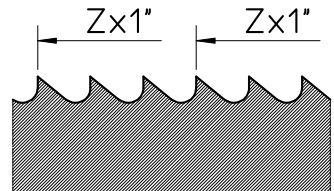
This will start the sensor calibration and "CAL 0." is displayed. Now move the sensor slowly in one direction on the tape. Upon completion of the calibration (display "CAL 0"... "CAL 4") is the display again in normal mode.

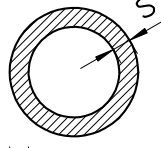
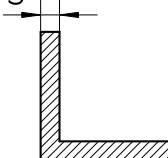
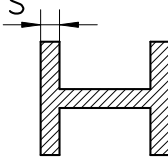
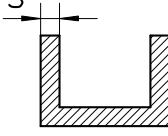
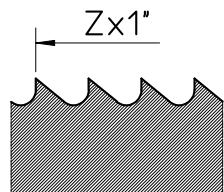
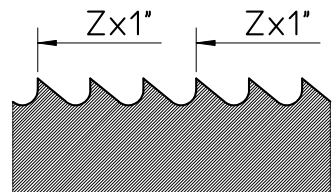
## CAPACITA' DI TAGLIO - Special 415 DI

| CAPACITA' DI TAGLIO<br>CUTTING CAPACITY - CAPACITE DE COUPE<br>SCHNITTKAPAZITAET - CAPACIDAD DE CORTE |  |  |  | $a \begin{array}{ c } \hline b \\ \hline \end{array} \begin{array}{ c } \hline a \times b \\ \hline \end{array}$ |
|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
|                      | 150                                                                               | 350                                                                               | 330                                                                                 | $\begin{array}{l} 330 \times 400 \\ 320 \times 420 \end{array}$                                                  |
|                      | 150                                                                               | 310                                                                               | 280                                                                                 | 150 x 320                                                                                                        |
|                      | 150                                                                               | 200                                                                               | 190                                                                                 | 100 x 210                                                                                                        |
|                      | 150                                                                               | 310                                                                               | 280                                                                                 | 150 x 320                                                                                                        |
|                      | 150                                                                               | 215                                                                               | 200                                                                                 | 100 x 220                                                                                                        |

### SCELTA DELLA LAMA

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

|  | L mm       |  |  |
|------------------------------------------------------------------------------------|------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
|                                                                                    | $\leq 40$  | 8                                                                                   | 6/10                                                                                 |
|                                                                                    | $>30 < 80$ | 6                                                                                   | 5/8                                                                                  |
|                                                                                    | $>60 < 90$ | 4                                                                                   | 4/6                                                                                  |
|                                                                                    | $\leq 100$ | 3                                                                                   | 3/4                                                                                  |

| <br><br><br> | S mm       |  |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                                                                                                                          | $\leq 1,5$ | 14                                                                                   | -                                                                                     |
|                                                                                                                                                                                                                                                                                                                                                          | $>1 < 2$   | 10                                                                                   | 10/14                                                                                 |
|                                                                                                                                                                                                                                                                                                                                                          | $>2 < 4$   | 8                                                                                    | 8/12                                                                                  |
|                                                                                                                                                                                                                                                                                                                                                          | $>4 < 8$   | 6                                                                                    | 6/10                                                                                  |
|                                                                                                                                                                                                                                                                                                                                                          | $>6 < 12$  | 6                                                                                    | 5/8                                                                                   |
|                                                                                                                                                                                                                                                                                                                                                          | $\leq 12$  | 4                                                                                    | 4/6                                                                                   |

|                                                                                                                                                            |                                                                                                                                    |
|------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| Velocità di taglio<br>La macchina è dotata di variatore di velocità di taglio (inverter)                                                                   | 22-73 m/1'                                                                                                                         |
| Cutting machine<br>The machine is equipped with variable cutting speed (inverter)                                                                          | 22-73 m/1'                                                                                                                         |
| Vitesse de coupe<br>La machine est équipée avec la variable la vitesse de coupe (inverter)                                                                 | 22-73 m/1'                                                                                                                         |
| Schnittgeschwindigkeit<br>Die Maschine ist ausgestattet mit Variable Schnittgeschwindigkeit (Inverter)                                                     | 22-73 m/1'                                                                                                                         |
| Velocidad de corte<br>La máquina está equipada con la variable de la velocidad de corte (inverter)                                                         | 22-73 m/1'                                                                                                                         |
| Materiale<br>Material<br>Materiel<br>Material<br>Material                                                                                                  | Velocità di taglio m/1'<br>Cutting machine m/1'<br>Vitesse de coupe m/1'<br>Schnittgeschwindigkeit m/1'<br>Velocidad de corte m/1' |
| Acciai da costruzione Fe37+Fe42<br>Structural steel Fe37+Fe42<br>Aciers de construction Fe37+Fe42<br>Baustahl Fe37+Fe42<br>Acero de construccion Fe37+Fe42 | Pieni Solid Pleins Volles Material Pies 73~<br>Profilati Structural steel Profilés Profile Perfiles 73~                            |
| Acciai da costruzione Fe50+Fe70<br>Structural steel Fe50+Fe70<br>Aciers de construction Fe50+Fe70<br>Baustahl Fe50+Fe70<br>Acero de construccion Fe50+Fe70 | 73~                                                                                                                                |
| Acciai al carbonio C40+C60<br>Carbon steel C40+C60<br>Aciers au carbone C40+C60<br>Kohlenstoffstahl C40+C60<br>Acero de carbono C40+C60                    | 73~                                                                                                                                |
| Acciai legati Alloyed steel<br>Aciers alliés Legierter Stahl<br>Acero aleado                                                                               | 22~                                                                                                                                |
| Acciai inox Stainless steel<br>Aciers inoxydables Rostfreier Stahl<br>Acero inoxidable                                                                     | 22~                                                                                                                                |
| Ghisa grigia Grey cast iron<br>Fonte grise Grauguß<br>Fundición gris                                                                                       | 73~                                                                                                                                |
| Leghe d'alluminio Aluminium alloys<br>Alliages d'aluminium Legierungen aus Aluminium<br>Aleación de Aluminio                                               | 73~                                                                                                                                |
| Bronzi Bronze<br>Bronze Bronze<br>Bronces                                                                                                                  | 73~                                                                                                                                |

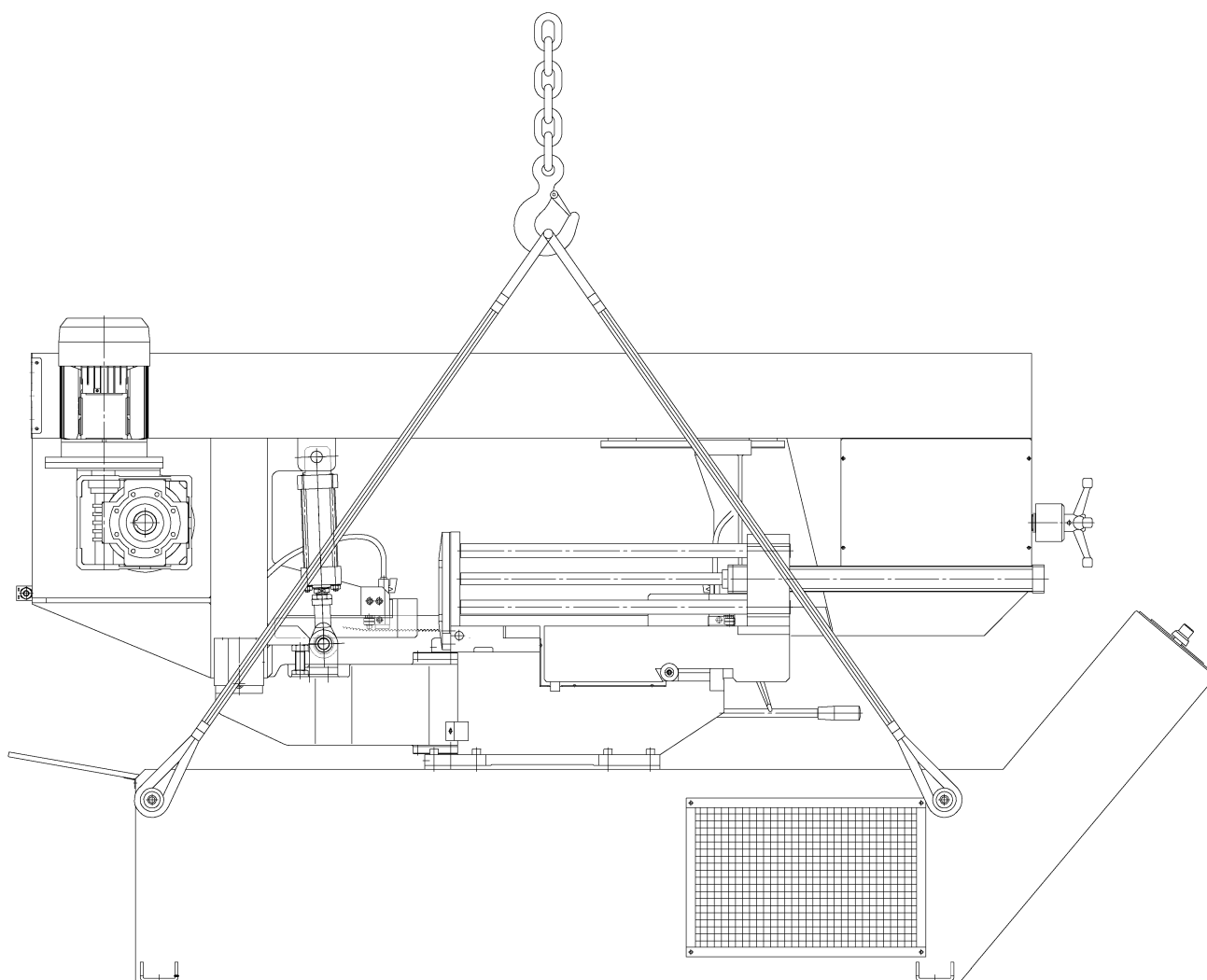
# MOVIMENTAZIONE E TRASPORTO

Handling and transportation

Manutention et transport

Handhabung und Transport

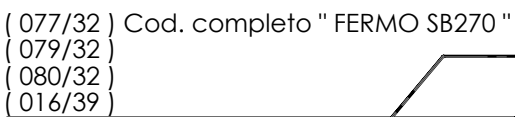
Movilizacion y transporte



780 kg~ - 7645 N

Overall dimensions and installation  
Dimensions hors-tout et installation  
Aussenabmessungen und installation  
Dimensiones màximas extremas e instalaciòn

## Dimensiones màximas extremes e instal·lació



001-A/43

020/47

091/90

056/43

002/43

001-A/35

100-B/43

020/47

001-A/47

038/09

001-B/47

100/38

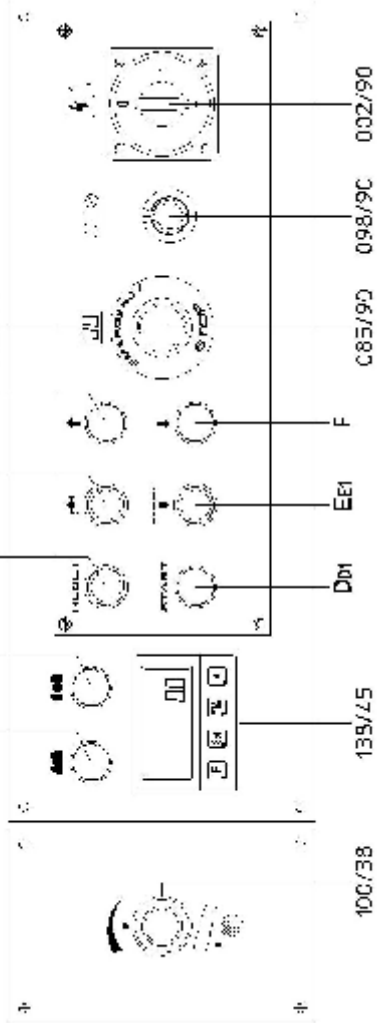
001/47

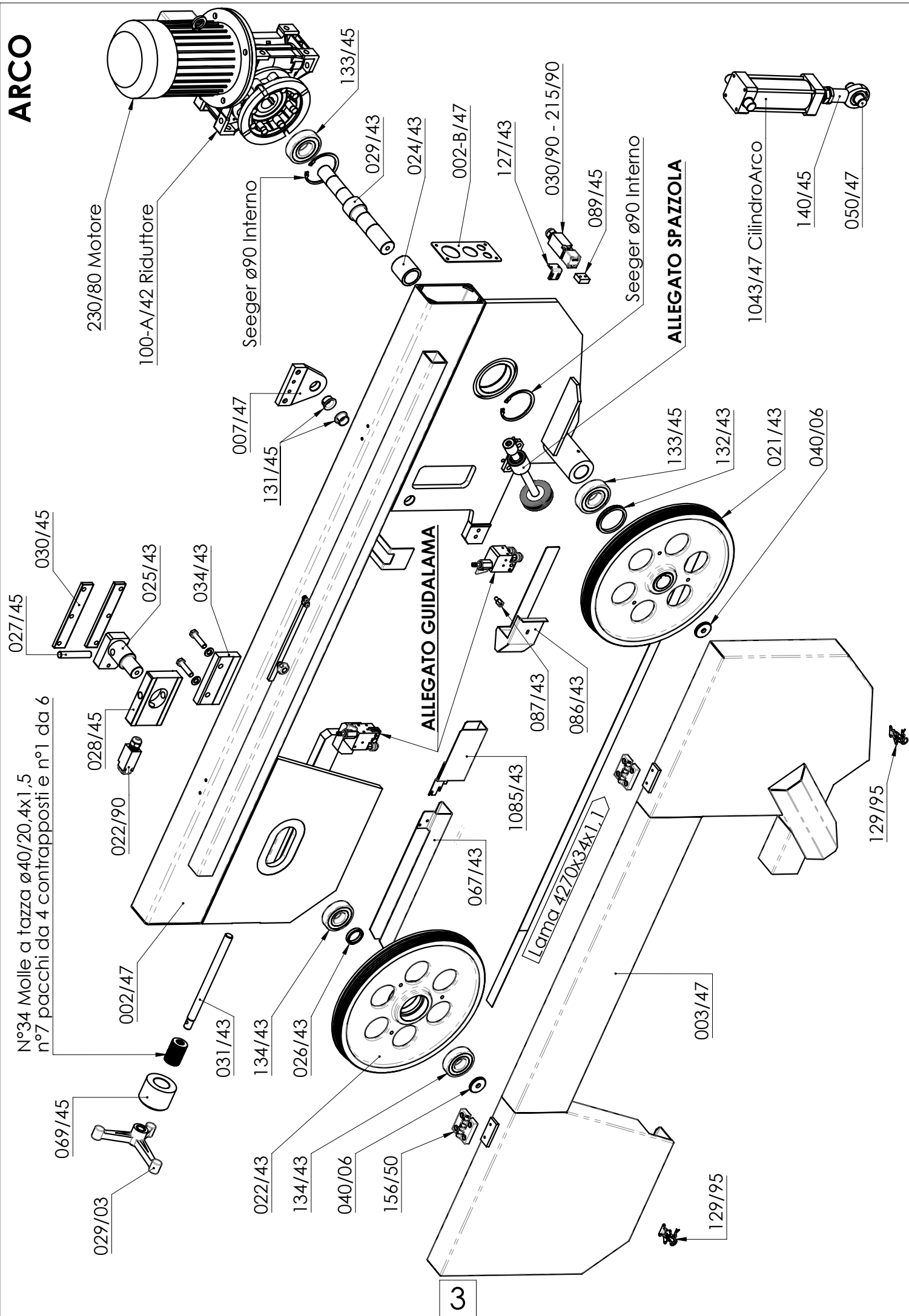
101/43

138/45 Display

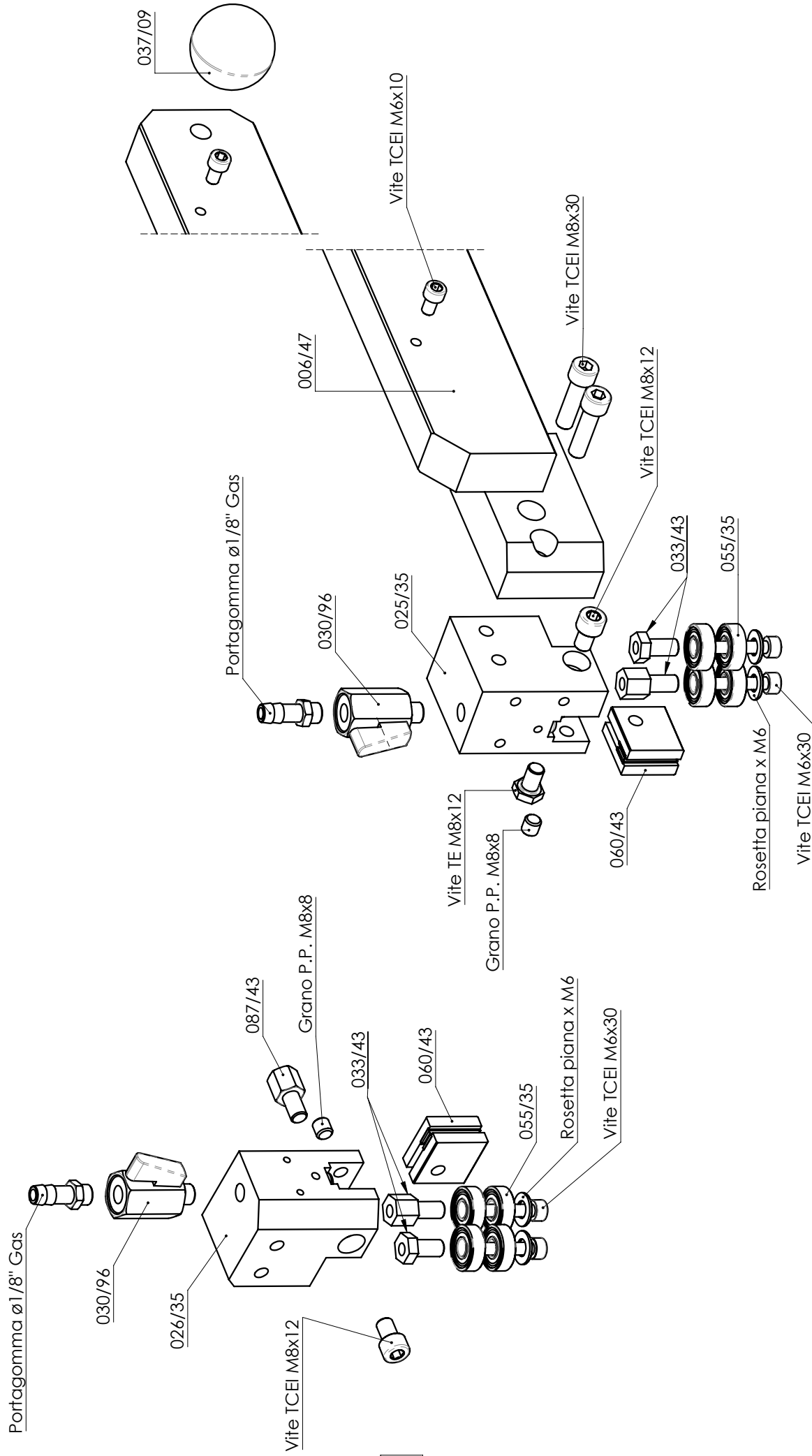
# BASAMENTO

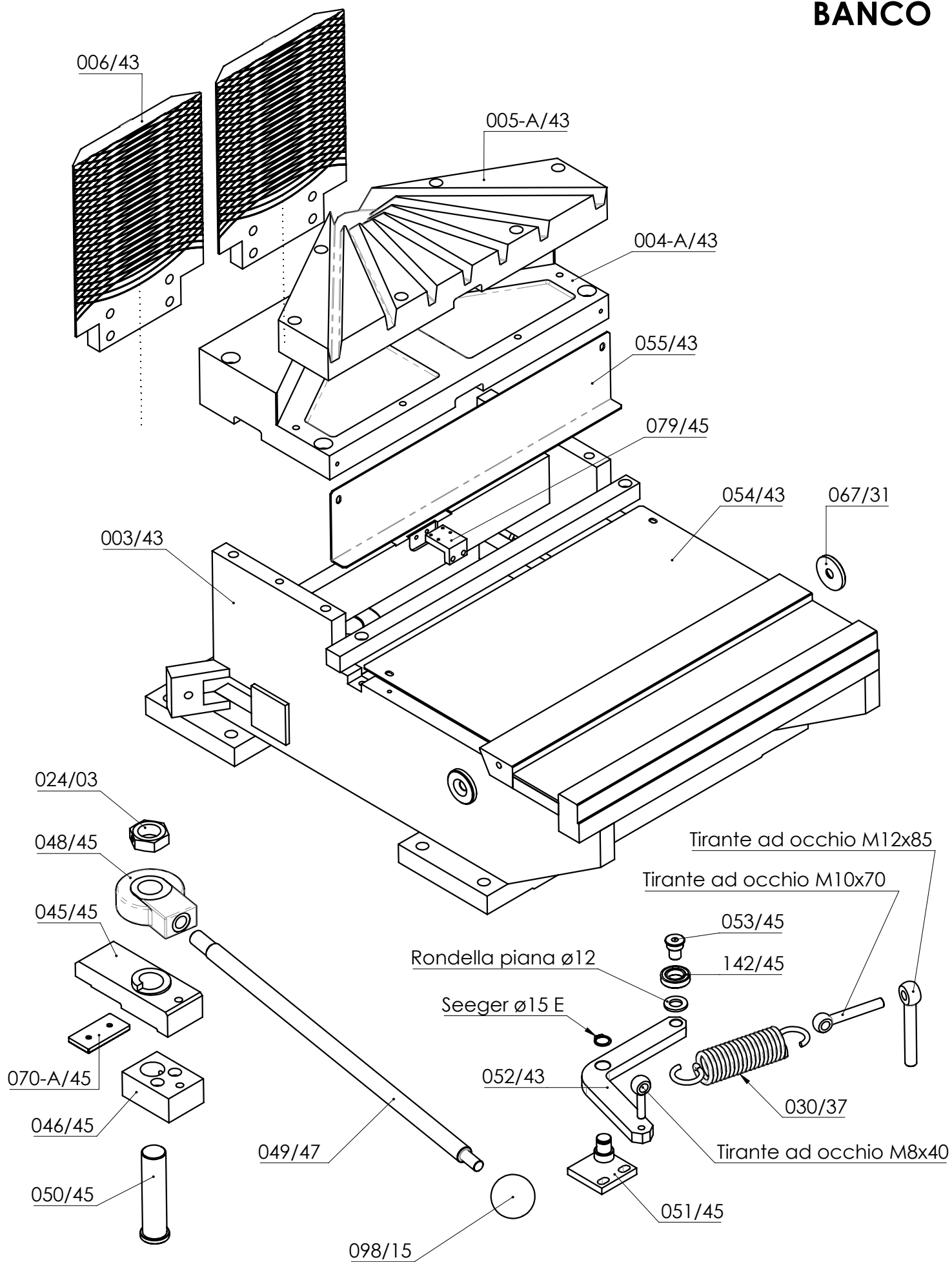
ALLEGATO PANNELLO COMANDI



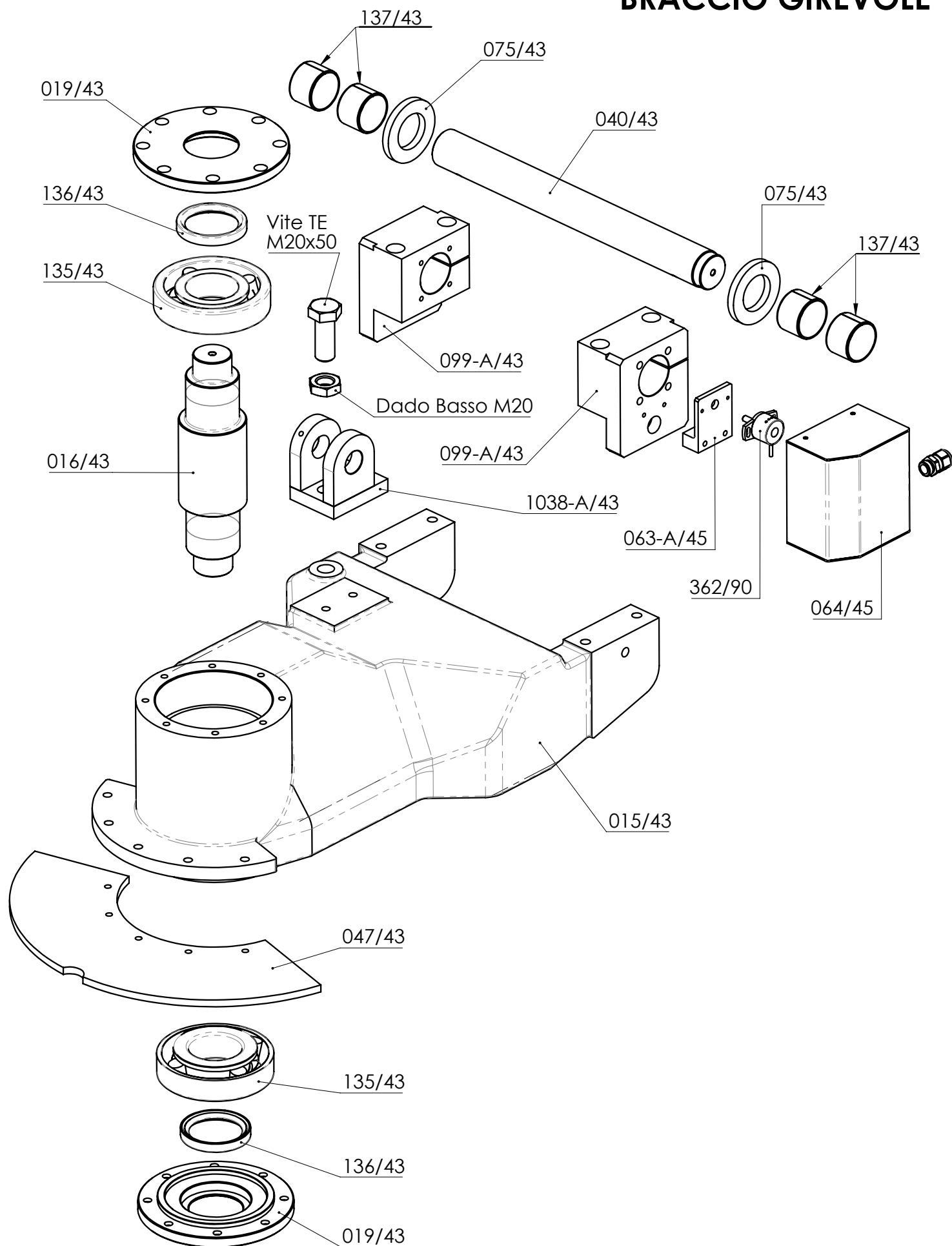


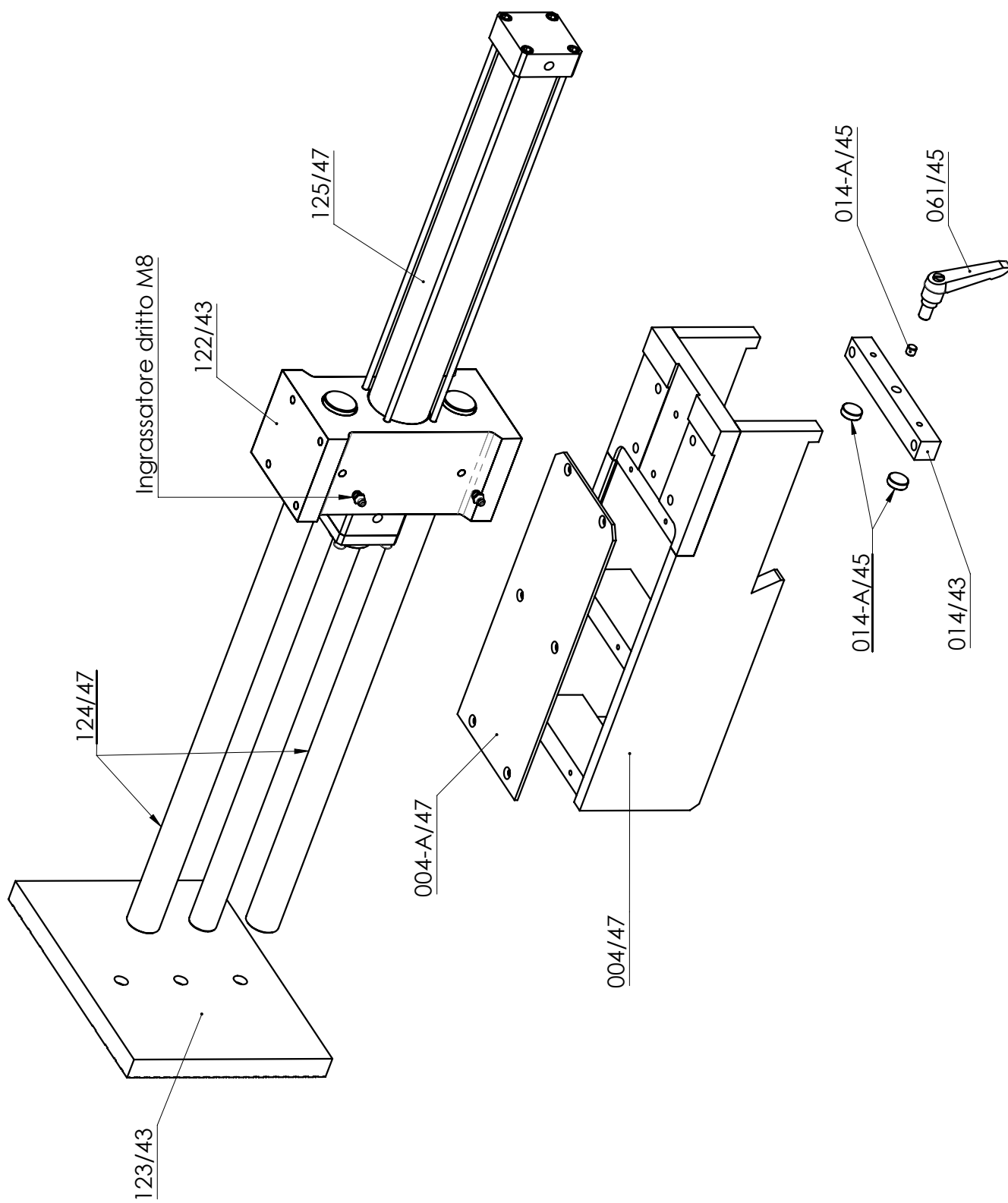
# GUIDALAMA FISSO



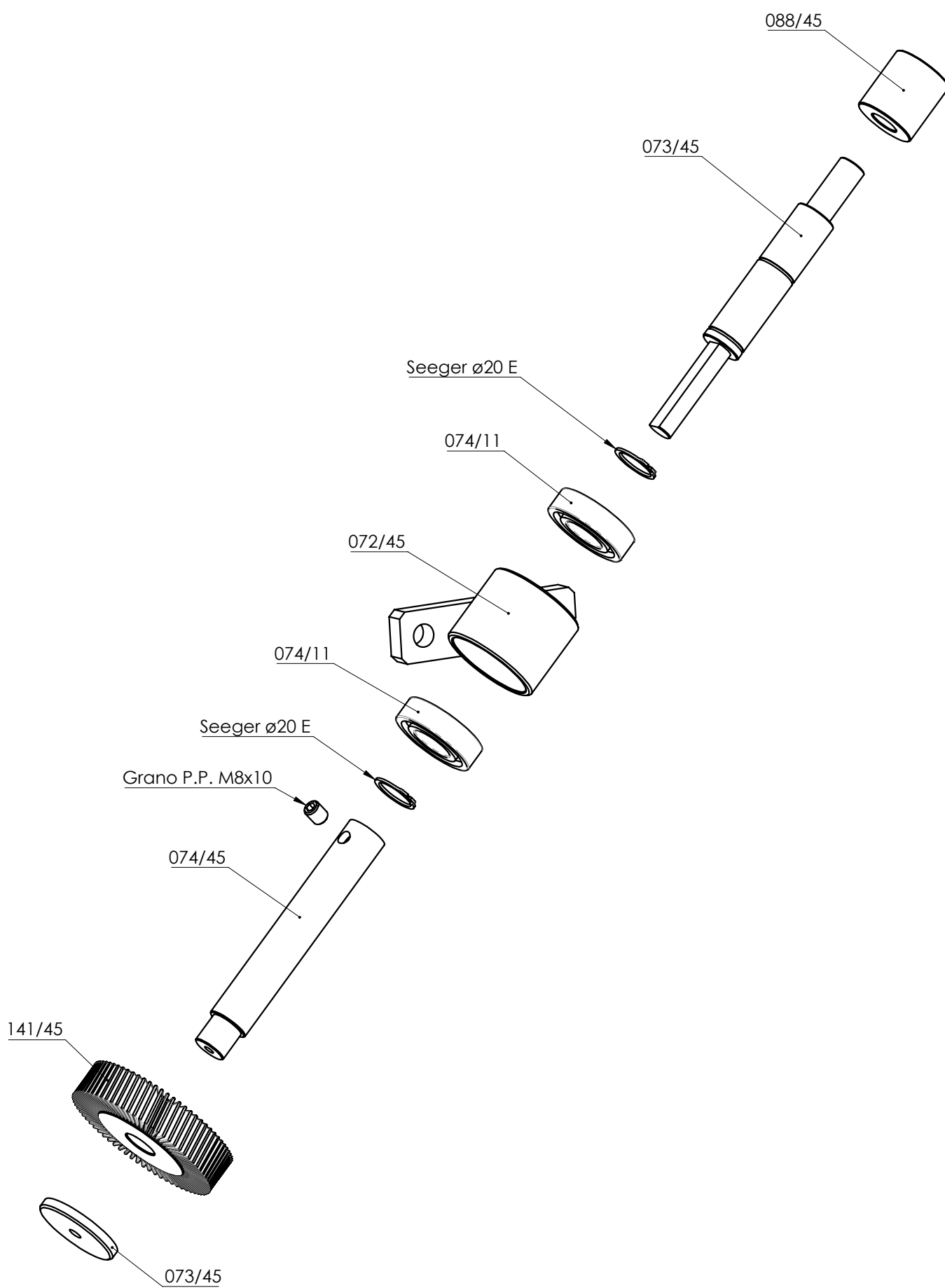


# BRACCIO GIREVOLE





# SPAZZOLA PULISCILAMA



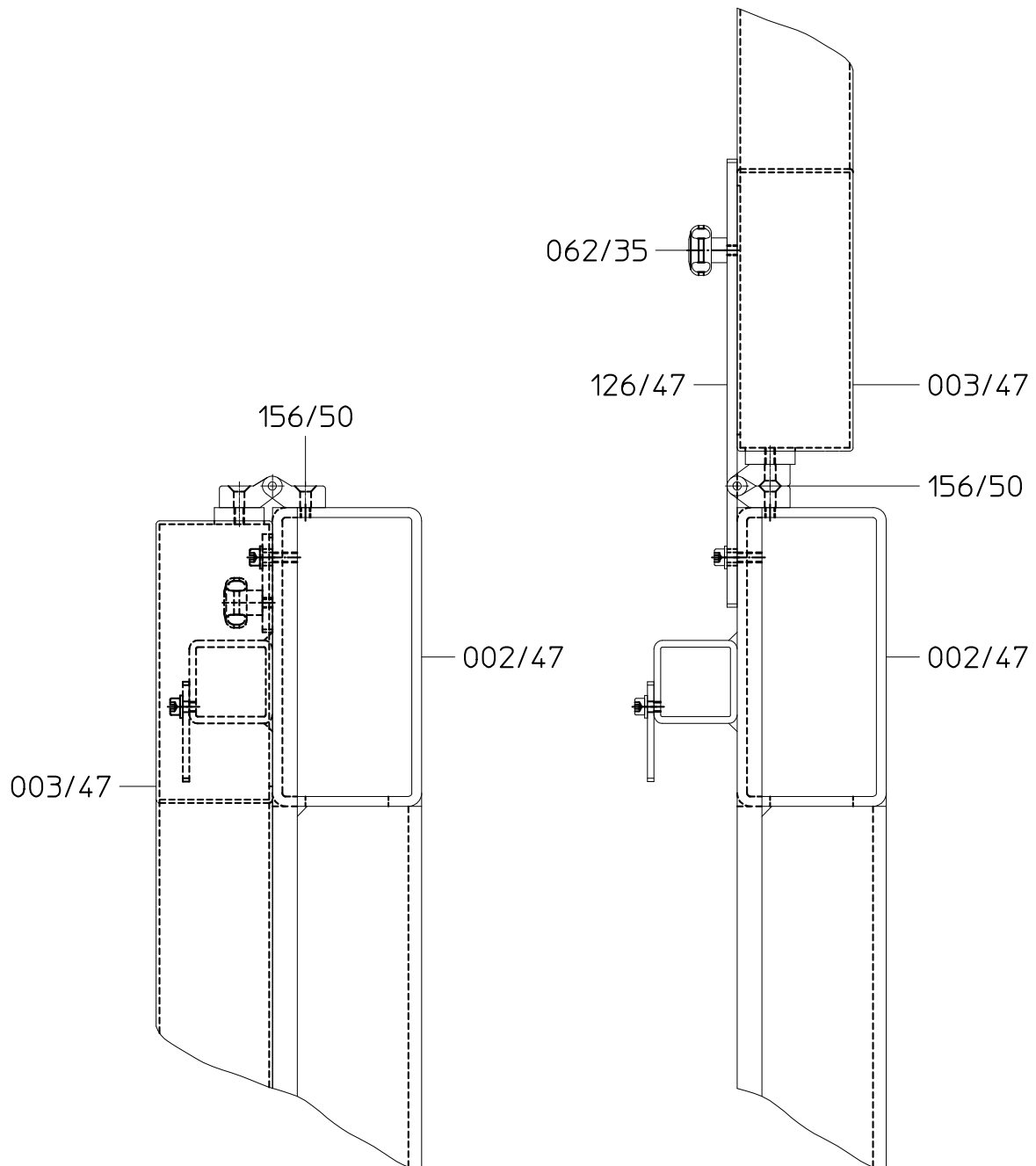


## **ATTENZIONE:**

ALL'APERTURA DEL RIPARO ARCO ASSICURARLO  
CON IL PIATTO DI SICUREZZA.

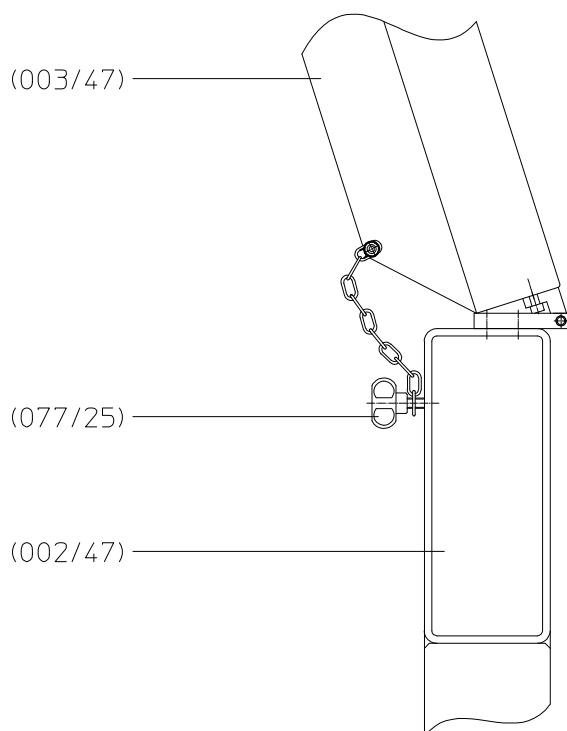
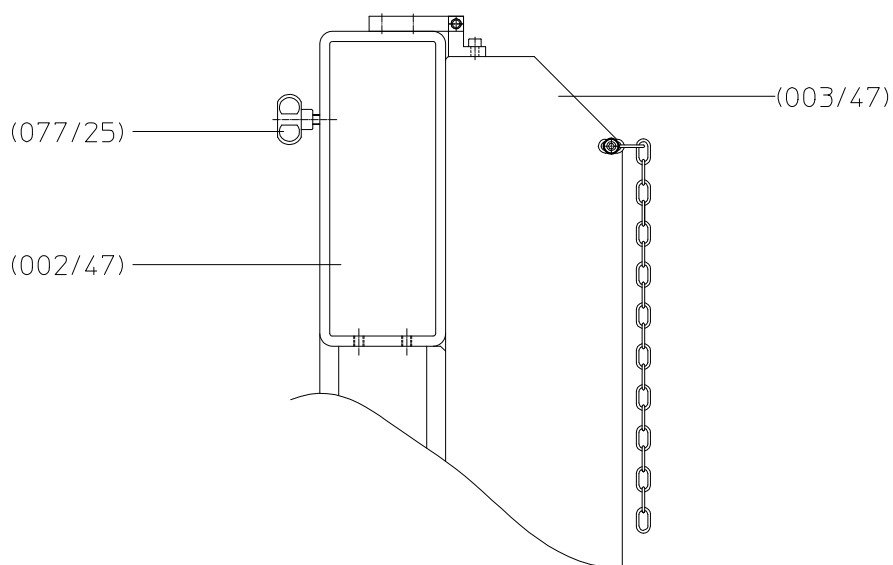
## **ATTENTION:**

WHEN OPENING THE SAWBLADE COVER,  
LOCK IT BY MEANS OF THE SAFETY BRAKET.



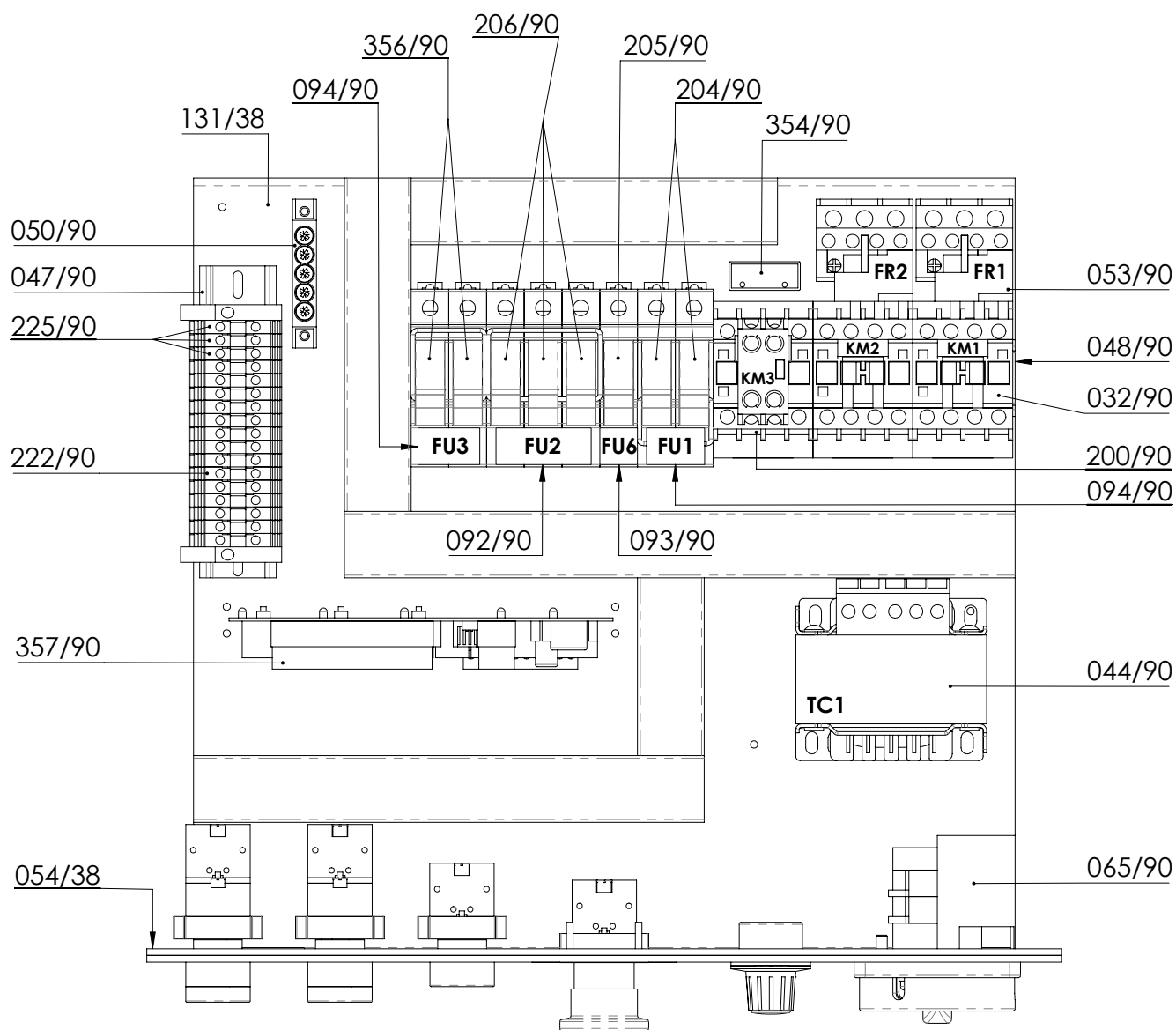
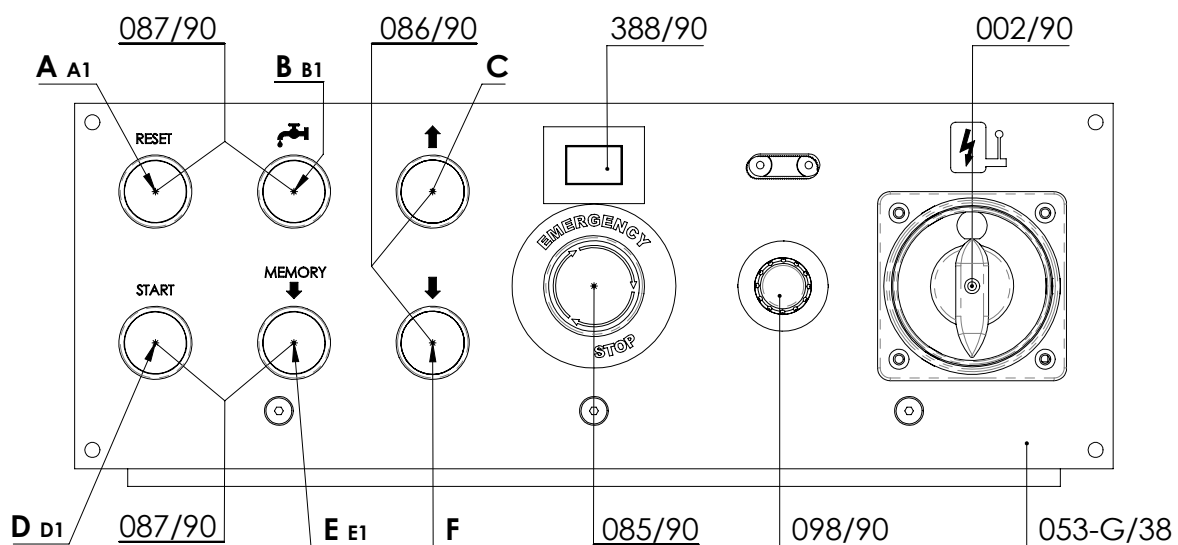
**ATTENZIONE:**  
ALL'APERTURA DEL RIPARO ARCO ASSICURARLO  
CON LA CATENELLA AL VOLANTINO POSTERIORE.

**ATTENTION:**  
WHEN OPENING THE BOW PROTECTION, FASTEN IT  
WITH THE CHAIN TO THE REAR HANDWHEEL.





# **PENNELLO COMANDI SPECIAL-415-DI** **CONTROL PANEL SPECIAL-415-DI**





|            | ITALIANO                                 | ENGLISH                                        | DEUTSCH                                      |
|------------|------------------------------------------|------------------------------------------------|----------------------------------------------|
| <b>FR1</b> | RELE' TERMICO MOTORE POMPA OLIO          | THERMAL RELAY OIL PUMP MOTOR                   | THERMISCHES RELAIS MOTOR ÖLPUMPE             |
| <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 KÜHLMITTEL MOTOR          |
| <b>FR4</b> | RELE' TERMICO MOTORE ESTRATTORE TRUCIOLI | RELAY THERMAL CHIPS EXTRACTOR MOTOR            | THERMISCHES RELAIS SPÄNEAUSZIEHER MOTOR      |
| <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 MATERIAL ANWESEND                 |
| <b>FU1</b> | FUSIBILI PROTEZIONE TRASFORMATORE        | FUSE TRANSFORMER PROTECTION                    | SCHUTZSICHERUNG TRAF0                        |
| <b>FU2</b> | FUSIBILI PROTEZIONE MOTORI               | FUSE MOTOR PROTECTION                          | SCHUTZSICHERUNG MOTOR                        |
| <b>FU3</b> | FUSIBILI PROTEZIONE POMPA REFRIGERANTE   | FUSE COOLANT PUMP PROTECTION                   | SCHUTZSICHERUNG KÜHLMITTELPOMPE              |
| <b>FU4</b> | FUSIBILI PROTEZIONE ALIMENTATORE         | FUSE FEEDER PROTECTION                         | SCHUTZSICHERUNG ZUFÜHRER                     |
| <b>FU5</b> | FUSIBILI PROTEZIONE 24 V dc              | FUSE 24 V dc PROTECTION                        | SCHUTZSICHERUNG 24 V dc                      |
| <b>FU6</b> | FUSIBILI PROTEZIONE 24 V ac              | FUSE 24 V ac PROTECTION                        | SCHUTZSICHERUNG 24 V ac                      |
| <b>FU7</b> | FUSIBILE PROTEZIONE MOTORE INVERTER      | FUSE INVERTER PROTECTION                       | SCHUTZSICHERUNG GESCHWINDIGKEITUMRICHTER     |
| <b>G</b>   | GALLEGGIANTE                             | FLOAT                                          | SCHWIMMER                                    |
| <b>H1</b>  | SPIA PRESENZA LINEA                      | SPY LINE PRESENCE                              | LINIENPRÄSENZ LAMPE                          |
| <b>H2</b>  | SPIA LAMA IN TENSIONE                    | SPY BLADE IN TENSION                           | BLATT SPANNUNG LAMPE                         |
| <b>H3</b>  | SPIA START CICLO                         | SPY CYCLE START                                | ZYKLUS START LAMPE                           |
| <b>K</b>   | TELERUTTORE TERMORESISTENZA              | THERMO-RESISTANCE CONTROL SWITCH               | FERNSCHALTER 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           | FERNSCHALTER ZENTRALHYDRAULIK MOTOR          |
| <b>KM2</b> | TELERUTTORE MOTORE LAMA                  | BLADE MOTOR REMOTE CONTROL SWITCH              | FERNSCHALTER SÄGEBLATTMOTOR                  |
| <b>KM3</b> | TELERUTTORE POMPA REFRIGERANTE           | COOLANT PUMP REMOTE CONTROL SWITCH             | FERNSCHALTER KÜHLMITTELPUMPE                 |
| <b>KM4</b> | TELERUTTORE ESTRATTORE TRUCIOLI (COCLEA) | CHIP EXTRACTOR CONTROL SWITCH                  | FERNSCHALTER SPÄNEAUSZIEHER                  |
| <b>KM5</b> | TELERUTTORE MOTORE GUIDA PEZZO           | THERMAL RELAY GUIDA-PIECE MOTOR CONTROL SWITCH | FERNSCHALTER MOTOR FÜHRUNGSSTÜCK             |
| <b>KM6</b> | TELERUTTORE POMPA RECUPERO REFRIGERANTE  | COOLANT RECYCLE PUMP THERMAL RELAY             | FERNSCHALTER WIEDERGEWINNUNG KÜHLMITTELPUMPE |
| <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                         | KOPFDREHUNG MOTOR                            |
| <b>M50</b> | MOTORE GUIDA PEZZO                       | GUIDA-PIECE MOTOR                              | FÜHRUNGSSTÜCK MOTOR                          |



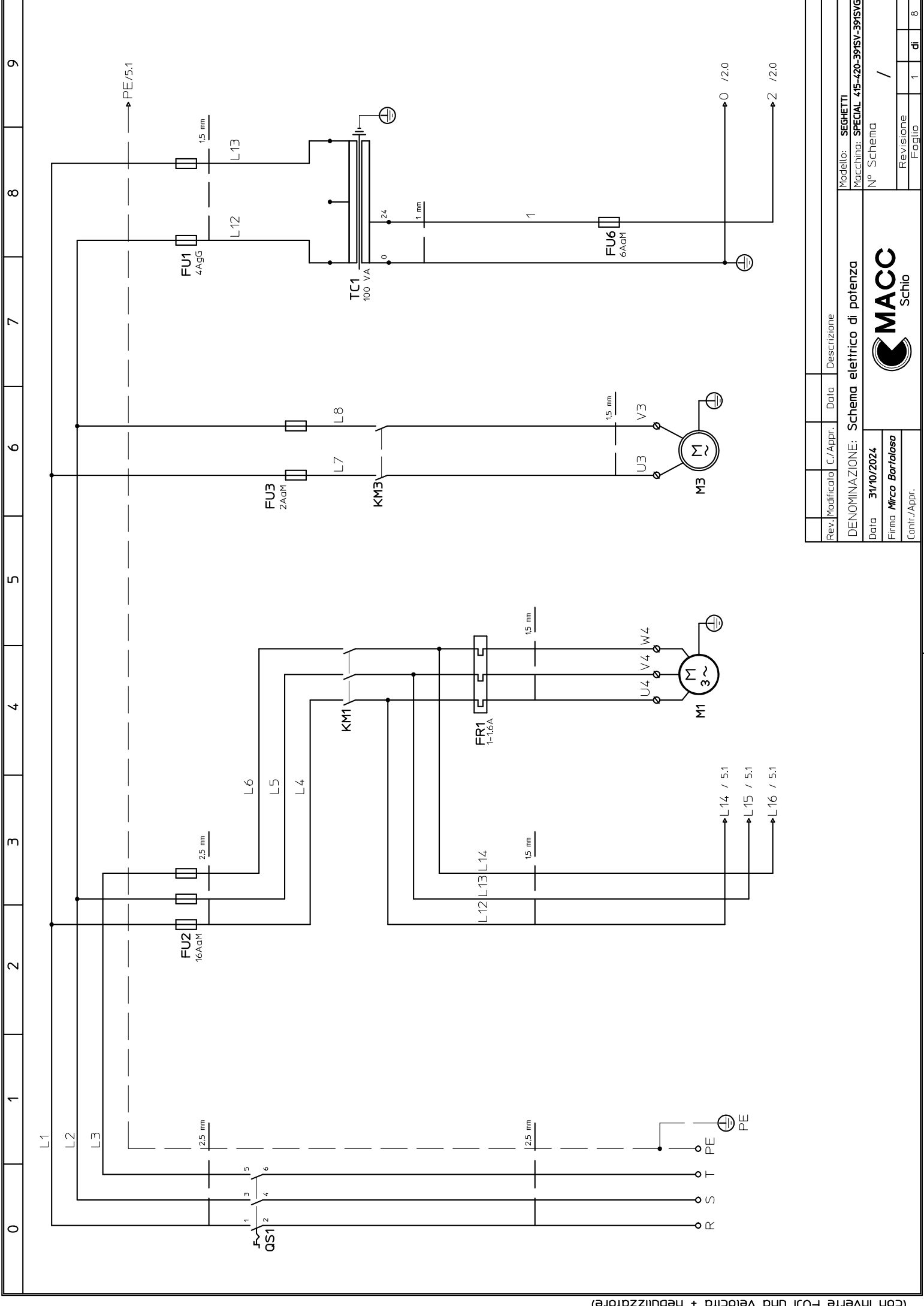
|             |                                        |                                              |                                         |
|-------------|----------------------------------------|----------------------------------------------|-----------------------------------------|
| <b>M60</b>  | MOTORE RECUPERO REFRIGERANTE           | COOLANT RECYCLE MOTOR                        | MOTOR WIEDERGEWINNUNG KÜHLMITTELPUMPE   |
| <b>M6</b>   | MOTORE AVANZAMENTO MATERIALE           | MATERIAL FEEDING MOTOR                       | MOTOR MATERIALVORSCHUB                  |
| <b>N1</b>   | INVERTER MOTORE LAMA                   | BLADE MOTOR INVERTER                         | INVERTER SÄGEBLATTMOTOR                 |
| <b>N2</b>   | INVERTER MOTORE AVANZAMENTO MATERIALE  | MATERIAL FEEDING MOTOR INVERTER              | INVERTER MOTOR MATERIALVORSCHUB         |
| <b>P1</b>   | POTENZIOMETRO POSIZIONAMENTO LAMA      | BLADE POSITIONING POTENTIOMETER              | POTENZIOMETER SÄGEBLATTPOSITIONIERUNG   |
| <b>P2</b>   | POTENZIOMETRO VELOCITA' LAMA           | BLADE SPEED POTENTIOMETER                    | POTENZIOMETER SÄGEBLATT-GESCHWINDIGKEIT |
| <b>PX1</b>  | SENSORE ROTAZIONE LAMA                 | BLADE ROTATION SENSOR                        | BLATTUMDREHUNGSSENSOR                   |
| <b>QS1</b>  | INTERUTTORE GENERALE                   | MAIN ON / OFF SWITCH                         | HAUPTSCHALTER                           |
| <b>QS2</b>  | INTERUTTORE / COMMUTATORE DI VELOCITA' | SWITCH / SPEED CHANGE OVERSWITCH             | SCHALTER / GESCHWINDIGKEIT-UMSCHALTER   |
| <b>QS3</b>  | INTERUTTORE POMPA REFRIGERANTE         | COOLANT PUMP SWITCH                          | SCHALTER KÜHLMITTELPUMPE                |
| <b>R</b>    | RELE' COMANDO MARCIA ROTAZIONE LAMA    | ROTATING BLADE COMMAND RELAY                 | POTENZIOMETER SÄGEBLATTUMDREHUNG        |
| <b>R1</b>   | RELE' COMANDO TELERUTTORE POMPA OLIO   | OIL PUMP REMOTE CONTROL SWITCH COMMAND RELAY | RELAIS ÖLPUMPE-FERNSCHALTER             |
| <b>R10</b>  | RELE' PRESSINO ON                      | VERTICAL VICE RELAY                          | RELAIS VERTIKALSPANNER "ON"             |
| <b>R2</b>   | RELE' COMANDO TELERUTTORE LAMA         | BLADE REMOTE CONTROL SWITCH COMMAND RELAY    | RELAIS FERNSCHALTER BLATT               |
| <b>R5</b>   | RELE' COMANDO MICROLUBRIFICAZIONE      | MICROLUBRICATION COMMAND RELAY               | RELAIS MIKROSPRÜHEINRICHTUNGSTEUER      |
| <b>RT</b>   | RELE' TEMPORIZZATORE                   | TIMER RELAY                                  | TIMER-RELAIS                            |
| <b>RX</b>   | RELE' COMANDO TERMOSTATO               | THERMOSTAT COMMAND RELAY                     | THERMOSTAT-STEUERRELAIS                 |
| <b>RYV5</b> | RELE' DISCESA LAMA                     | BADE DESCENT RELAY                           | RELAIS SÄGEBLATTABSTIEG                 |
| <b>S</b>    | SELETTORE FUNZIONE                     | FUNCTION SELECTOR                            | FUNKTIONWÄHLER                          |
| <b>S10</b>  | SELETTORE PRESSINO ON                  | VERTICAL VICE ON CHANGEOVER SWITCH           | VERTIKALSPANNER-WAEHLER ON              |
| <b>S4</b>   | SELETTORE CAMBIO LAMA                  | BLADE RELACEMENT CHANGEOVER SWITCH           | SAEGEBLATT WÄHLSCHALTER                 |
| <b>SB1</b>  | PULSANTE DI ARRESTO EMERGENZA          | EMERGENCY PUSH BUTTON                        | NOT AUS TASTE                           |
| <b>SB11</b> | PULSANTE DETENSIONAMENTO LAMA          | BLADE DETENSIONING BUTTON                    | SÄGEBLATT ENSPANNNSCHALTER              |
| <b>SB12</b> | PULSANTE TENSIONAMENTO LAMA            | BLADE TENSIONING BUTTON                      | SAEGEBLATT SPANNNSCHALTER               |
| <b>SB2</b>  | PULSANTE START CICLO                   | CYCLE START BUTTON                           | ZYKLUS START TASTE                      |
| <b>SB3</b>  | PUSANTE DI RESET                       | RESET BUTTON                                 | RESET-TASTE                             |
| <b>SB4</b>  | PULSANTE CHIUSURA MORSA                | LOCK VICE BUTTON                             | SPANNSTOCKSCHLIEßUNG TASTE              |
| <b>SB5</b>  | PULSANTE APERTURA MORSA                | OPEN VICE BUTTON                             | SPANNSTOCK ÖFFNUNG TASTE                |
| <b>SB6</b>  | PULSANTE DI SALITA                     | BUTTON UP                                    | ANSTIEG-TASTE                           |
| <b>SB7</b>  | PULSANTE DI DISCESA                    | BUTTON DOWN                                  | ABSTIEG-TASTE                           |
| <b>SB8</b>  | PULSANTE REFRIGERANTE "ON"             | REFRIGERANTE BUTTON "ON"                     | KÜHLUNG-TASTE "ON"                      |
| <b>SB9</b>  | PULSANTE MEMORY                        | MEMORY BUTTON                                | MEMORY TASTE                            |



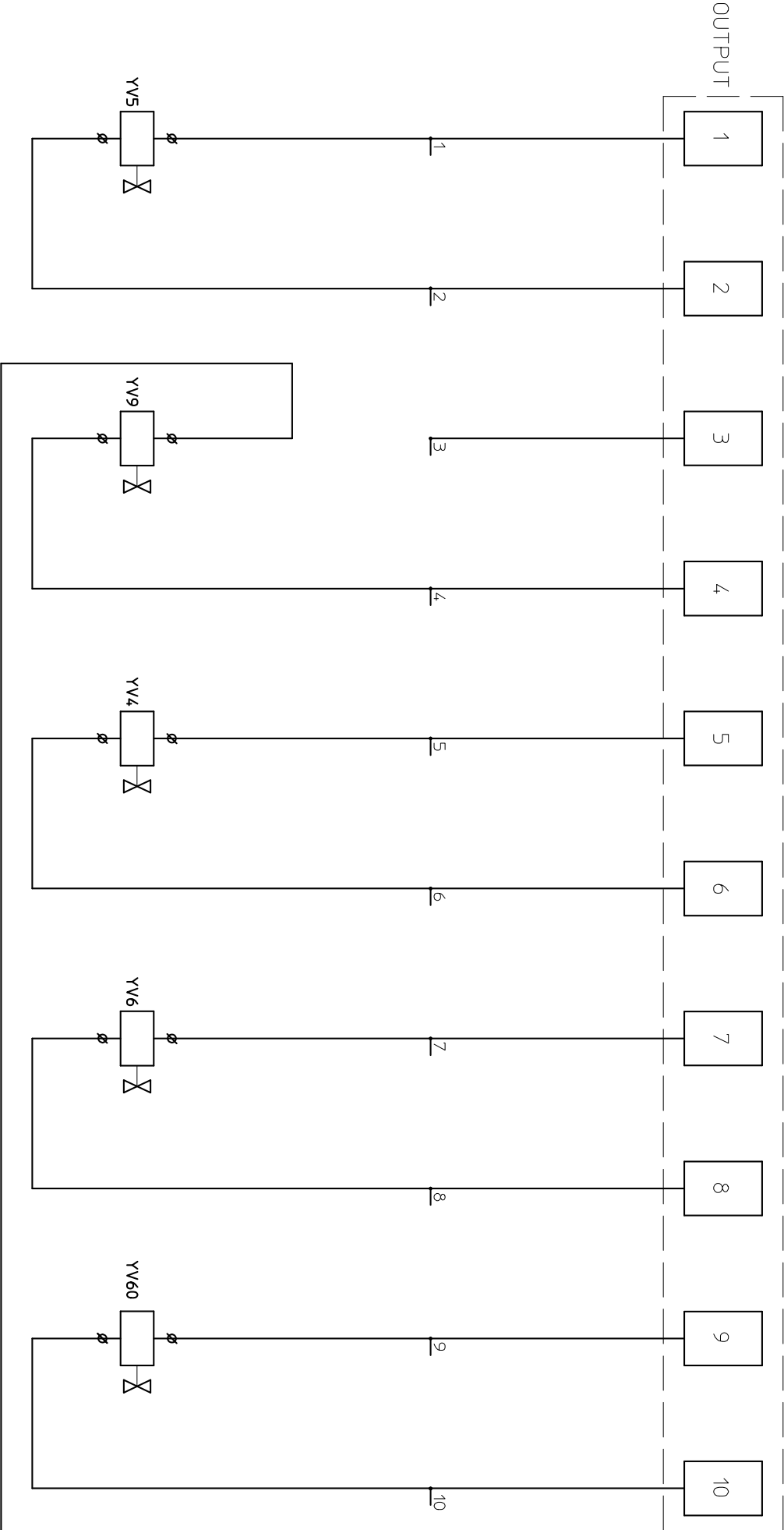
|             |                                          |                                             |                                                 |
|-------------|------------------------------------------|---------------------------------------------|-------------------------------------------------|
| <b>SB90</b> | PULSANTE DI SBLOCCO                      | RELEASE BUTTON                              | AUSLÖSER TASTE                                  |
| <b>SQ1</b>  | MICROINTERRUTTORE ROTTURA LAMA           | MICROSWITCH BLADE FAILURE                   | ENDSCHALTER BRUCH BLATT                         |
| <b>SQ10</b> | MICROINTERRUTTORE START A PEDALE         | PEDAL MICROSWITCH START                     | MIKROSCHALTER START FUßPEDAL                    |
| <b>SQ11</b> | MICROINTERRUTTORE CHIUSURA MORSAA PEDALE | PEDAL VICE CLOSING MICROSWITCH              | MIKROSCHALTER FUßPEDAL SCHLIESSUNG SCHRAUBSTOCK |
| <b>SQ15</b> | FINECORSO GUIDA PEZZO AVANTI             | MICROSWITCH GUIDE-PIECE FORWARD             | ENDSCHALTER FÜHRUNGSSTÜCK NACH VORNE            |
| <b>SQ16</b> | FINECORSO GUIDA PEZZO INDIETRO           | MICROSWITCH GUIDE-PIECE BACKWARD            | ENDSCHALTER FÜHRUNGSSTÜCK NACH HINTEN           |
| <b>SQ18</b> | FINECORSO SOLLEVATORE ALTO               | MICROSWITCH LIFT UP POSITION                | ENDSCHALTER HEBWERK NACH OBEN                   |
| <b>SQ2</b>  | MICROINTERRUTTORE CARTER APERTO 1        | MICROSWITCH PROTECTION CASE                 | ENDSCHALTER SCHUTZGEHÄUSE                       |
| <b>SQ02</b> | MICROINTERRUTTORE CARTER APERTO 2        | COVER OPEN MICROSWITCH                      | ENDSCHALTER SCHUTZ GEÖFFNET                     |
| <b>SQ20</b> | PRESSOSTATO CHIUSURA MORS                | VICE PRESSURE SWITCH                        | SPANNDRUCK TASTE                                |
| <b>SQ3</b>  | FINECORSO CARRO AVANTI                   | MICROSWITCH CARRIAGE FORWARD                | ENDSCHALTER WAGEN VORNE                         |
| <b>SQ30</b> | FINECORSO ROTAZIONE -45°                 | MICROSWITCH -45° ROTATION                   | ENDSCHALTER -45° GEHRUNG                        |
| <b>SQ4</b>  | FINECORSO CARRO INDIETRO                 | MICROSWITCH CARRIAGE BACK                   | ENDSCHALTER WAGEN ZURÜCK                        |
| <b>SQ5</b>  | FINECORSO TESTA ALTA                     | MICROSWITCH HEAD / BOW UP                   | ENDSCHALTER BÜGEL NACH OBEN                     |
| <b>SQ6</b>  | FINECORSO 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                  | ENDSCHALTER STÜCKANWESENDEHEIT                  |
| <b>SQ8</b>  | MICROINTERRUTTORE MANIGLIONE (CARICO)    | MICROSWITCH HANDLE                          | ENDSCHALTER GRIFF                               |
| <b>SQ9</b>  | MICROINTERRUTTORE START MANUALE          | MICROSWITCH MANUAL START                    | ENDSCHALTER MANUELLER START                     |
| <b>T</b>    | TEMPORIZZATORE                           | TIMER                                       | TIMER                                           |
| <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 VORNE LANGSAM               |
| <b>YV10</b> | ELETTROVALVOLA SBLOCCAGGIO MANUALE       | MANUAL UNLOCKING SOLENOID VALVE             | ELEKTROVENTIL MANUELLE AUFHEBUNG                |
| <b>YV11</b> | ELETTROVALVOLA DETENSIONAMENTO LAMA      | UNTIGHTNING BLADE SOLENOID VALVE            | MAGNETVENTILSAEGERBLATT ENTSPANNUNG             |
| <b>YV11</b> | ELETTROVALVOLA DETENSIONAMENTO LAMA      | BLADE DETENSIONING SOLENOID VALVE           | ELEKTROVENTIL SAEGERBLATT ENTSPANNUNG           |
| <b>YV12</b> | ELETTROVALVOLA TENSIONAMENTO LAMA        | TIGHTNING BLADE SOLENOID VALVE              | MAGNETVENTIL SAEGERBLATT SPANNUNG               |
| <b>YV12</b> | ELETTROVALVOLA TENSIONAMENTO LAMA        | BLADE TENSIONING SOLENOID VALVE             | ELEKTROVENTIL SAEGERBLATTSPANNUNG               |
| <b>YV15</b> | ELETTROVALVOLA SOLLEVATORE CARICATORE    | LOADER LIFT SOLENOID VALVE                  | ELEKTROVENTIL HEBWERK LADEMAGAZIN               |
| <b>YV16</b> | ELETTROVALVOLA MORS CARICATORE           | LOADER VICE SOLENOID VALVE                  | ELEKTROVENTIL LADEMAGAZINSPANNSTOCK             |
| <b>YV18</b> | ELETTROVALVOLA GIUDA PEZZO AVANTI        | GUIDE-PIECE FORWARD SOLENOID VALVE          | ELEKTROVENTIL ZAUN NACH VORNE                   |



|       |                                          |                                                       |                                                 |
|-------|------------------------------------------|-------------------------------------------------------|-------------------------------------------------|
| YV19  | ELETTROVALVOLA GUIDA PEZZO INDIETRO      | GUIDE-PIECE BACKWARD SOLENOID VALVE                   | ELEKTROVENTIL HINTEREN ZAUN                     |
| YV2   | ELETTROVALVOLA CARRO INDIETRO LENTO      | CARRIAGE SLOW BACK MOTION SOLENOID VALVE              | ELEKTROVENTIL WAGEN ZURÜCK LANGSAM              |
| YV20  | SBL OCCAGGIO ROTAZIONE                   | ROTATION UNLOCK                                       | UNSPERRE UMDREHUNG                              |
| YV3   | ELETTROVALVOLA MORSA MOBILE APRE         | OPEN MOVABLE VICE SOLENOID VALVE                      | ELEKTROVENTIL ÖFFNUNG BEWEGLICHER SPANNSTOCK    |
| YV30  | ELETTROVALVOLA MORSA MOBILE CHIUDE       | CLOSE MOVABLE VICE SOLENOID VALVE                     | ELEKTROVENTIL SCHLIEßUNG BEW. SPANNSTOCK        |
| YV3P  | ELETTROVALVOLA PRESSINO MOBILE APRE      | OPEN MOVABLE VERTICAL PRESSING DEVICE SOLENOID VALVE  | ELEKTROVENTIL ÖFFNUNG VERTIKALSPANNER           |
| YV30P | ELETTROVALVOLA PRESSINO MOBILE CHIUDE    | CLOSE MOVABLE VERTICAL PRESSING DEVICE SOLENOID VALVE | ELEKTROVENTIL SCHLIEßUNG VERTIKALSPANNER        |
| YV31  | ELETTROVALVOLA RUOTA ARCO LENTO          | SLOW BOW ROTATION SOLENOID VALVE                      | ELEKTROVENTIL SÄGEARMUMDREHUNG LANGSAM          |
| YV37  | ELETTROVALVOLA RUOTA DX                  | ROTATION LEFTWARDS SOLENOID VALVE                     | ELEKTROVENTIL UMDREHUNG LINKS                   |
| YV38  | ELETTROVALVOLA RUOTA SX                  | ROTATION RIGHTWARDS SOLENOID VALVE                    | ELEKTROVENTIL UMDREHUNG RECHTS                  |
| 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                         | ELEKTROVENTIL SCHNELLER ABSTIEG                 |
| YV6   | ELETTROVALVOLA MORSA FISSA APRE          | OPEN FIXED VICE SOLENOID VALVE                        | ELEKTROVENTIL ÖFFNUNG FESTER SPANNSTOCK         |
| YV60  | ELETTROVALVOLA MORSA FISSA CHIUDE        | CLOSE FIXED VICE SOLENOID VALVE                       | ELEKTROVENTIL SCHLIEßUNG FESTER SPANNSTOCK      |
| YV6P  | ELETTROVALVOLA PRESSINO FISSO APRE       | OPEN FIXED VERTICAL PRESSING DEVICE SOLENOID VALVE    | ELEKTROVENTIL ÖFFNUNG FESTER VERTIKALSPANNER    |
| YV60P | ELETTROVALVOLA PRESSINO FISSO CHIUDE     | CLOSE FIXED VERTICAL PRESSING DEVICE SOLENOID VALVE   | ELEKTROVENTIL SCHLIEßUNG FESTER VERTIKALSPANNER |
| YV61  | ELETTROVALVOLA SPAZZOLA                  | BRUSH VALVE                                           | ELEKTROVENTIL BÜRSTE                            |
| YV62  | ELETTROVALVOLA ATTIVAZIONE 2a POMPA OLIO | SECOND OIL PUMP                                       | ELEKTROVENTIL AKTIVIERUNG ZWEITE ÖLPUMPE        |
| YV7   | ELETTROVALVOLA CARRO AVANTI              | CARRIAGE FORWARD SOLENOID VALVE                       | ELEKTROVENTIL WAGEN VORNE                       |
| YV70  | ELETTROVALVOLA SPAZZOLA                  | BRUSH SOLENOID VALVE                                  | MAGNETVENTIL BÜRSTE                             |
| 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                             | ELEKTROVENTIL MIKROSPRÜHEINRICHTUNG             |



| Rev.                                       | Modificato | C./Appr. | Data | Descrizione |
|--------------------------------------------|------------|----------|------|-------------|
| DENOMINAZIONE: Schema elettrico di potenza |            |          |      |             |
| Modello: SEGNETTI                          |            |          |      |             |
| Macchina: SPECIAL 415-420-391SV-391SVG     |            |          |      |             |
| N° Schema /                                |            |          |      |             |
| Firma <b>Micro Bartoloso</b>               |            |          |      |             |
| Contr./Appr.                               |            |          |      |             |
| MACC Schio                                 |            |          |      |             |
| Revisione                                  |            |          |      |             |
| Foglio                                     |            |          |      |             |
| 1                                          |            |          |      |             |
| di                                         |            |          |      |             |
| 8                                          |            |          |      |             |



1,9 / 0 ➤ ➤ 18 / 3,0

1,9 / 2 ➤ ➤ 0 / 3,0

➤ 2 / 3,0

|      |            |          |      |             |
|------|------------|----------|------|-------------|
| Rev. | Modificato | C./Appr. | Data | Descrizione |
|------|------------|----------|------|-------------|

DENOMINAZIONE: Schema elettrico di comando OUTPUT

Data 31/10/2024

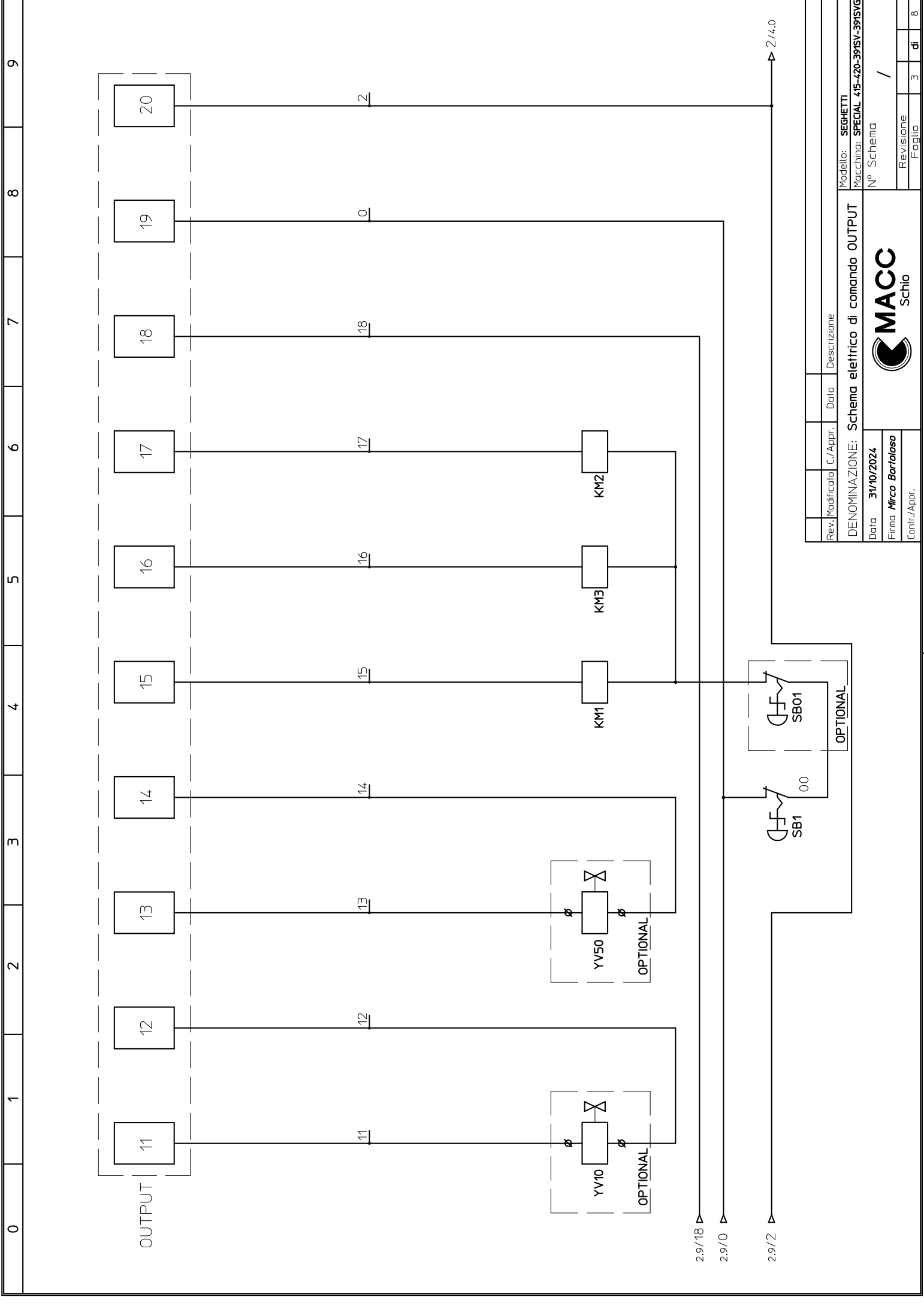
Firma *Micro Bortoloso*

Confr./Appr.



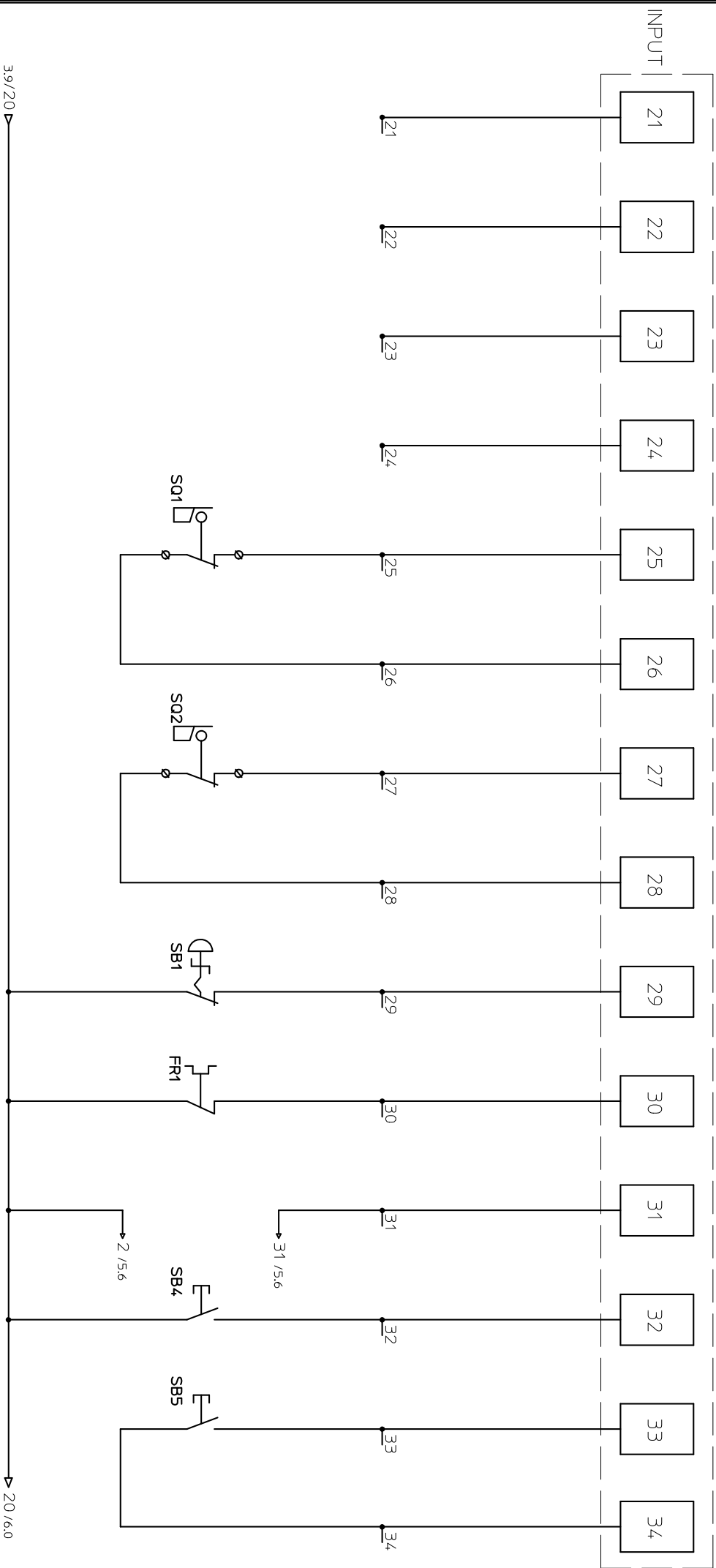
Modello: SEGHETTI  
Macchina: SPECIAL 415-420-391SV-391SVG

N° Schema /  
Revisione  
Foglio 2 di 8



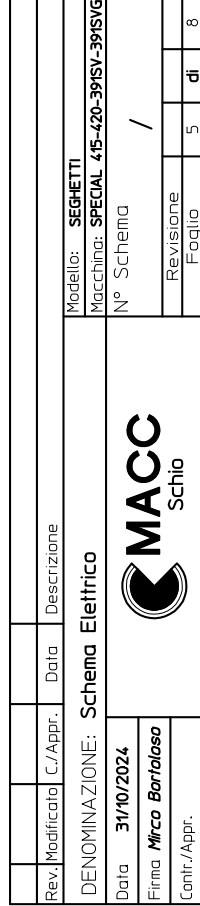
| Rev.                                              | Modificato | C./Appr. | Data   | Descrizione |
|---------------------------------------------------|------------|----------|--------|-------------|
|                                                   |            |          |        |             |
| DENOMINAZIONE: Schema elettrico di comando OUTPUT |            |          |        |             |
| Modello: SEGNETTI                                 |            |          |        |             |
| Macchina: SPECIAL 415-420-391SV-391SVG            |            |          |        |             |
| N° Schema /                                       |            |          |        |             |
| Data 31/10/2024                                   |            |          |        |             |
| Firma Mirco Bartoloso                             |            |          |        |             |
| Contr./Appr.                                      |            |          |        |             |
| Revisione                                         |            |          | Foglio | di          |
|                                                   |            |          | 3      | 8           |

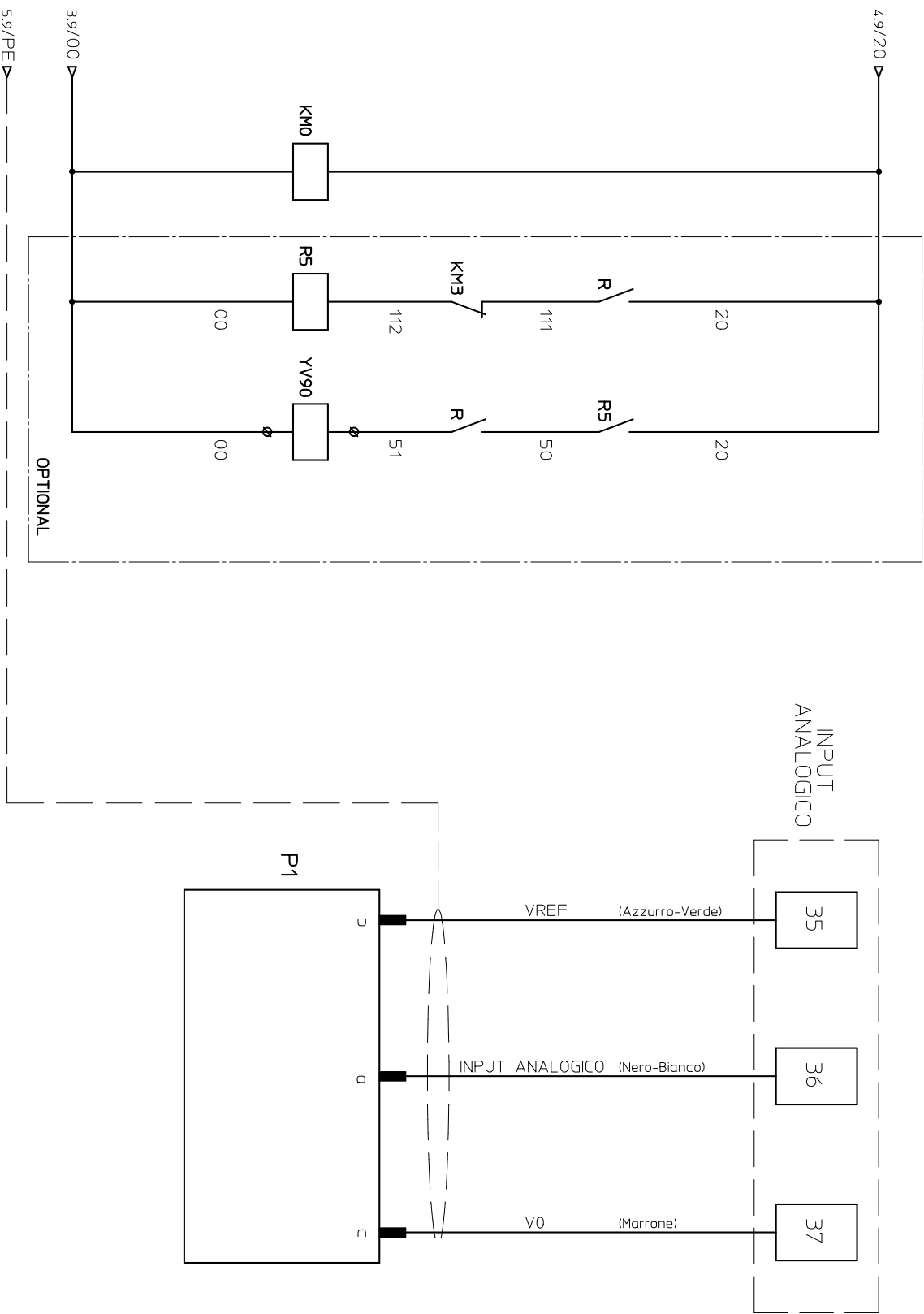




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|------|------------|----------|------|-------------|
| Rev. | Modificato | C./Appr. | Data | Descrizione |
|      |            |          |      |             |

|                                                  |                 |                                        |  |                   |
|--------------------------------------------------|-----------------|----------------------------------------|--|-------------------|
| DENOMINAZIONE: Schema elettrico di comando INPUT |                 |                                        |  | Modello: SEGHETTI |
| Data                                             | 31/10/2024      | Macchina: SPECIAL 415-420-391SV-391SVG |  | N° Schema         |
| Firma                                            | Micro Bertoloso |                                        |  | /                 |
| Confr./Appr.                                     |                 |                                        |  | Revisione         |
|                                                  |                 |                                        |  | Foglio            |
|                                                  |                 |                                        |  | 4                 |
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| Rev. | Modificato | C./Appr. | Data | Descrizione |
|      |            |          |      |             |

DENOMINAZIONE: Schema INPUT analogico

Data 31/10/2024

Firma *Micro Bortoloso*

Contr./Appr.

Modello: SEGHETTI

Macchina: SPECIAL 415-420-391SV-391SVG

N° Schema

Revisione /

Foglio 6 di 8





|                 |                                                                                      |
|-----------------|--------------------------------------------------------------------------------------|
| CONTROLLATO IL: | 02/04/2025                                                                           |
| DA:             |  |
| REV.:           | 01                                                                                   |