SEGATRICE A NASTRO AUTOMATICA PER METALLI FERROSI
BAND SAW AUTOMATIC FOR FERROUS METALS
BANDSAEGEMASCHINE FÜR EISENMETALLE
SCIE A RUBAN AUTOMATIQUE POUR METAUX FERREUX
SIERRA DE CINTA DE LA MAQUINA PARA METALES FERROSOS
ЛЕНТОЧНОПИЛЬНЫЙ 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 391 AV

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

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

2023

CE

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

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

- **Dichiara, 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 màquina descripta a continuaciòn:**
- **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 391 AV

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

_____

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

2023

- E' CONFORME ALLA DIRETTIVA MACCHINE 2006/42/CE, ALLA DIRETTIVA COMPATIBILITA' ELETTROMAGNETICA 2014/30/UE ED ALLA DIRETTIVA BASSA TENSIONE 2014/35/UE.

- IS IN COMPLIANCE WITH THE 2006/42/EEC MACHINERY DIRECTIVE, 2014/30/UE DIRECTIVE ON ELECTROMAGNETIC COMPATIBILITY, 2014/35/UE LOW VOLTAGE DIRECTIVE.

- DEN NORMEN BEZÜGLICH DER MASCHINEN-RICHTLINIE 2006/42/EWG, 2014/30/EWG RICHTLINIE ZUR ELEKTROMAGNETISCHEN KOMPATIBILITÄT, 2014/35/EWG RICHTLINIE FÜR NIEDERSPANNUNG ENTSPRICHT.

- EST CONFORME A LA DIRECTIVE MASCHINES 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/CE, ДИРЕКТИВЫ ОБ ЭЛЕМКТРОМАГНИТНОЙ СОВМЕСТИМОСТИ 2014/30/CE И ДИРЕКТИВЫ О НИЗКОМ НАПРЯЖЕНИИ 2014/35/CE.

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

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

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

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

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

_____ _____ **Schio, 2023**

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

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

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

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

SE PROHÍBE TERMINANTEMENTE UTILIZAR LA MÁQUINA SIN LÍQUIDO DE CORTE.

É SEVERAMENTE PROIBIDO UTILIZAR A MÁQUINA SEM LÍQUIDO DE CORTE.

Категорчески запрещена эксплуатация машины без смазочно-охлаждающей жидкости



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

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

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

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

SISTEMA DE MICROLUBRICACIÓN: SI ESTÁ INSTALADO EN LA MÁQUINA, ES OBLIGATORIO EL USO DE UNA MÀSCARA 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.

Magyarul



Feleslegessé vált elektromos és elektronikus készülékek hulladékként való eltávolítása (Használható az Európai Unió és egyéb európai országok szelektív hulladékgyűjtési rendszereiben)

Ez a szimbólum a készüléken vagy a csomagolásán azt jelzi, hogy a terméket ne kezelje háztartási hulladékként. Kérjük, hogy az elektromos és elektronikai hulladék gyűjtésére kijelölt gyűjtőhelyen adja le. A feleslegessé vált termékének helyes kezelésével segít megelőzni a környezet és az emberi egészség károsodását, 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 lakhelyén az illetékesekhez, a helyi hulladékgyűjtő szolgáltatóhoz vagy ahhoz az üzlethez, ahol a terméket megvásárolta.

Česky



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

Tento symbol umístěný na výrobku nebo jeho balení upozorňuje, že s výrobkem po ukončení jeho životnosti by nemělo být nakládáno jako s běžným odpadem z domácnosti. Místo toho by měl být odložen do sběrného místa, určeného k recyklaci elektronických výrobků a zařízení. Dodržením této instrukce zabráníte negativním dopadům na životní prostředí a zdraví lidí, které naopak může být ohroženo nesprávným nakládním s výrobkem při jeho likvidaci. Recyklováním materiálů, z nichž je vyroben, pomůžete zachovat přírodní zdroje. Pro získání dalších informací o recyklaci tohoto výrobku kontaktujte, prosím, místní orgány státní správy, místní firmu zabezpečující likvidaci a sběr odpadů nebo prodejnu, v níž jste výrobek zakoupili.

Slovensky



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

Tento symbol na výrobku alebo obale znamená, že s výrobkom nemôže byť nakladané ako s domovým odpadom. Miesto toho je potrebné ho doručiť do vyhradeného zberného miesta na recykláciu elektrozariadení. Tým, že zaistíte správne zneškodnenie, pomôžete zabrániť potencionálnemu 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.

Türkçe



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

Ürün veya ambalajı üzerinde bulunan bu sembol, bu ürünün bir ev atigi olarak muamele görmemesi gerektigini gösterir. Bunun yerine, elektrikli ve elektronik ekipmanlarin geri dönüsümü için mevcut olan uygun toplama noktasina teslim edilmelidir. Bu ürünün dogru sekilde atilmasini saglayarak, bu ürüne yanlis müdahale edilmesi sonucunda ortaya çikabilecek ve çevre ile insan sagligi üzerinde olumsuz etkide bulunabilecek durumlarin önlemesine yardimci olmus olursunuz. Malzemelerin geri dönüsümü, dogal kaynaklari korumamiza yardimci olacaktir. Bu ürünün geri dönüsümüyle ilgili daha fazla bilgi için, lütfen sehrinizde bulunan yerel ofisle, evsel atiklar toplama servisinizle veya bu ürünü satin aldiginiz magazayla temasa geçin.

Slovensko



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

Če se na izdelku ali na njegovi embalaži nahaja ta simbol, pomeni, da z izdelkom ne smete ravnati enako kot z drugimi gospodinjskimi 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 ohranjevanju naravnih virov. Podrobnejše informacije o recikliranju tega izdelka lahko dobite pri lokalni mestni upravi, službi oddajanja gospodinjskih 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.

Русский



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 выполнять специальные требования по утилизации этого изделия. Переработка данных материалов поможет сохранить природные ресурсы. Для получения более подробной информации о переработке этого изделия обратитесь в местные органы городского управления, службу сбора бытовых отходов или в магазин, где было приобретено изделие.

Suomi



Käytöstä poistetun sähkö- ja elektroniikkalaitteen 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 elektroniikkalaitteiden kierrätyksestä huolehtivaan keräyspisteeseen. Tämän tuotteen asianmukaisen hävittämisen varmistamisella autetaan estämään sen mahdolliset ympäristöön ja terveyteen kohdistuvat haittavaikutukset, joita voi aiheutua muussa tapauksessa tämän tuotteen epäasianmukaisesta jätekäsittelystä. Materiaalien kierrätys säästää luonnonvaroja. Tarkempia tietoja tämän tuotteen kierrättämisestä saa paikallisesta kunnantoimistosta.

Dansk



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

Hvis dette symbol findes på produktet eller på emballagen betyder det, at det pågældende produkt ikke må bortskaffes som almindeligt husholdningsaffald. Du skal i stedet aflevere det på et indsamlingssted, så det elektriske og elektroniske udstyr kan blive genbrugt. Når du bortskaffer produktet korrekt, hjælper du med at forhindre de mulige negative påvirkninger af miljøet eller sundheden, der kan opstå, hvis produktet bortskaffes på 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.

Português



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.

Ελληνικά



Αποκομιδή 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 ηλεκτρολογικού και ηλεκτρονικού υλικού προς ανακύκλωση. Με το να βεβαιωθείτε ότι το προϊόν πετάχτηκε 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 rebus 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 Entsorgen dieses Produkts schützen Sie die Umwelt und die Gesundheit Ihrer Mitmenschen. Umwelt und Gesundheit werden durch falsches Entsorgen gefährdet. Materialrecycling hilft den Verbrauch von Rohstoffen zu verringern. Weitere Informationen über das Recycling dieses Produkts erhalten Sie von Ihrer Gemeinde, den kommunalen Entsorgungsbetrieben oder dem Geschäft, in dem Sie das Produkt gekauft haben.

Español



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

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

Nederlands



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

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

Svenska



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

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

Italiano



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

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



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

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 upewnię się, że dyspozycja dotycząca produktu jest poprawna, zapobiega się potencjalnym negatywnym wpływom na środowisko oraz zdrowie ludzi, jakie mogłyby wystąpić w przypadku niewłaściwego postępowania. Recykling materiałów pomoże w ochronie naturalnych źródeł. W celu uzyskania bardziej szczegółowych informacji na temat recyklingu tego produktu, należy skontaktować się z naszym lokalnym biurem, 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 innsamlingssystem)

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

1. INTRODUCTION

This operation instruction manual conforms to the requirements of the Machine Directive 2006/42/EEC .
In this light , special attention has been given to safety aspects and accident prevention in the work-place for each stage in the machine's "life" . Information which could be of particular assistance to the operator has been highlighted .
The "Operating instructions" are an integral part of the machine and should be consulted before , during and after the start up of the machine and whenever else required . The content of these instructions should always be carefully observed .
The observance of the above is the only way to achieve the two fundamental aims of this manual :

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

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

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

2. INFORMATION ABOUT MAINTENANCE ASSISTANCE

2.1 GUARANTEE

- MACC S.r.l. products are guaranteed against material and manufacturing defects for a period of 12 months from the date of delivery or , if the machine is installed by MACC employees , from the date of machine start up .
- The buyer is only entitled to the replacement of parts which are acknowledged as faulty : carriage and packing are at the buyer's expense . In the event of the above , the following information should be supplied :

1. Date and number of purchasing document
2. Machine model
3. Serial number
4. Code of any relevant drawings

- Requests for compensation for the inactivity of the machine will not be accepted .
- The guarantee does not cover uses which are not in line with these operating instructions which are an integral part of the machine . Nor is maintenance covered if the instructions supplied are not observed .
- The guarantee will not cover machines which have undergone unauthorized modifications .
- Modification or tampering with the safety devices is strictly forbidden .

3. INDEX

3.1 INDEX OF CHAPTERS

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

3.2 INDEX OF DRAWINGS , DIAGRAMS AND TABLES

ENCL. TYPE	DESCRIPTION	ENCL No.
Table	Cutting capacity - Selection of blade - Cutting speeds	1-2
Drawings	Handling and transportation - Installation plan	3-4
Drawings	Base	5
Drawings	Bow - Blade guide	6-7
Drawings	Bench	8
Drawings	Columns	9
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Drawings	Brush cleaner blade	12
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Drawings	Carriage feed system	14
Drawings	Roller arm	15
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Drawings	Plate with electrical components	17
Diagram	Wiring diagram	

4. DESCRIPTION OF THE MACHINE

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

The machine produced by us is in compliance with :

- **2006/42/EEC Machinery Directive .**

The following Standards apply :

- EN ISO 12100 2010 Safety of machinery - Basic concepts and general principles for design . Basic terminology and methods .
- EN ISO 16093 2017 Safety of machinery . Basic concepts and general principles for design . Specifications and technical principles .
- EN ISO 13850 2015 Safety of machinery . Emergency stop devices , functional aspects - design principles .
- EN ISO 4413-14 2012 Safety requirements related to systems and components for hydraulics and pneumatic transmissions .
- EN ISO 14118 2018 Safety of machinery. Isolation and energy dissipation . Prevention of unexpected start-up .
- EN ISO 14119 2013 Safety of machinery - Interlocking devices with and without guard – locking . General principles and provisions for design .
- EN 60204-1 2016 Safety of machinery . Electrical equipment of machines . Part 1 : General requirements Sa
- EN 13857 2008 Safety of machinery . 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 2017 Electromagnetic compatibility - Requirements for household appliances , electric tools and similar apparatus .
- EN 61000-3-2 2018 Electromagnetic compatibility (EMC) -- Part 3-2 : Limits - Limits for harmonic current emissions .
- EN 61000-3-11 2017 Electromagnetic compatibility (EMC) -- Part 3-11: Limits - Limitation of voltage changes , voltage fluctuations and flicker in public low-voltage supply systems .
- EN 55032 2015 Electromagnetic compatibility of multimedia equipment - Emission requirements .
- EN 61000-4-2 2008 Electromagnetic compatibility (EMC) -- Part 4-2 : Testing and measurement techniques – Electrostatic discharge immunity test
- EN 61000-4-4 2012 Electromagnetic compatibility (EMC) -- Part 4-4 : Testing and measurement techniques - Electrical fast transient/burst immunity test
- EN 61000-4-6 2013 Electromagnetic compatibility (EMC) -- Part 4-6 : Testing and measurement techniques – Immunity to conducted disturbances , induced by radio-frequency fields

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

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

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

4.2 DESCRIPTION OF THE MACHINE AND ITS COMPONENTS

The Special 391 AV band sawing machine produced by MACC has a sturdy frame made from welded and painted sheet-steel . The upper surface is designed to allow the complete draining away of the cutting fluid . The device for the evacuation of shavings auger allows a more rapid disposal and a greater cleaning of the machine . The band holding bow is made from a cast iron and has generous dimensions , providing the cutting unit with the necessary strength and precision . The vice unit is made of cast-iron and clamps the material to be cut securely . The numerical control device allows the required length to be present and provides high repeated-cut precision . The coolant pump is fitted to the machine base . A electromechanical device with pressure switch for band tightening , prevents the band from advancing in the event of insufficient tension and moreover allows ideal operation conditions to be restored at any moment . The

main switch is located on the front panel . The blade is protected by a guard with interlock which covers the upper area and the handwheels and by two adjustable lower guards which protect the operator from ejected shavings and coolant . The machine is supplied with a set of service spanners and rod support .
The machine is equipped with the following safety devices :
- tight squared mesh fixed guards , with lower side at 4 cm , in accompliance with norm UNI EN ISO 13857:2008
- tight squared mesh movable guards , with lower side at 4 cm, in accompliance with norm UNI EN ISO 13857:2008
- interblock device with electromechanic operation, connected to the front and rear movable guards, cod. 030/90 Encl.3 .

4.3 INTENDED AND UNSUITABLE USES OF THE MACHINE

The SPECIAL 391 AV band sawing machine has been designed and built to cut bars , structural steel and ferrous metal pipes in accordance with the instructions contained in this manual . Therefore , the cutting of other materials is not permitted : if the above recommendations are not observed , the machine could be damaged and the health and safety of the operator put at risk . Cutting is not permitted , if the bar has not been first locked in the vice .

5. MAIN TECHNICAL DATA

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

Three phase power supply	
Motor power	2,2 kW
Motor revolutions	1430 rpm
Cutting speed (Inverter)	0-90 m/1’
Control unit motor	0.55 kW
Electric pump	0.09 kW
Fly wheel dimensions	350 mm
Blade size (length x width x thick)	3200 x 27 x 0.9 mm
Cutting thickness	1,2 mm
Cutting angle	0°
Material clamping vice max opening	320 mm
Jaws height	150 mm
Bed height	850 mm
Coolant tank capacity	50 litri
Machine weight	~10900 N (1110 kg~)

6. HANDLING AND TRANSPORTATION

For safe handling and transportation use a lift truck for movement indoors Encl. 3 . Keep the machine in its normal position .

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

7. MACHINE INSTALLATION

A. MACHINE CHECK

The machine should be checked to make sure that it has not been damaged during transportation and handling . If the machine appears to have been damaged , contact MACC immediately .

B. FASTENING OF THE MACHINE

The machine will be able to operate in keeping with the technical parameters supplied by MACC if it is positioned correctly and fastened securely to the bench or the factory floor so that vibrations are minimal during operation . Consult drawing SPECIAL 391 AV Installation plan Encl. 4 .

C. BAND ASSEMBLY

Remove the bow guard cod.153/37 by unscrewing the screws and the washers . Fit the band by inserting it first between the bearings of the blade guide heads and then on the two pulleys , tighten the blade slightly by means of the hand wheel cod.058/35 and replace the bow guard . Check that the band is fitted with the correct direction of teeth , as shown in enclosed document 6 . Make sure that the band type (dimensions 3200x27x0.9) and its teeth pitch are suited to the material to be cut .

D. ELECTRICAL CONNECTION TO THE MAINS

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

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

E. CUTTING COOLANT

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

8. MACHINE START UP AND OPERATION

8.1 DEVICES AND THEIR LOCATION

(The location of the devices described is shown on the SPECIAL 391 AV installation plan) .

Cod. 314/90 (Encl. 5)	LOCKABLE MAIN SWITCH
Cod. 089/90 (Encl. 5)	ELECTRIC PUMP
Cod. 085/90 (Encl. 13)	EMERGENCY BUTTON
Cod. 145-C/36 (Encl. 15)	ROLLER CONVEYOR
Cod. 030/37 (Encl. 8)	LOCKING VICE
Cod. 148/37 (Encl. 8)	CYLINDER FIXED VICE
Cod. 149/37 (Encl. 10)	CYLINDER VICE CARRIER
Cod. 216/37 (Encl. 9)	CYLINDER BOW

8.2 TOOLS SUPPLIED

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

8.3 OPERATION

CHECKS TO CARRY OUT BEFORE EACH CUT

A. Tension the band by rotating the handwheel cod.058/35 till the end of the traverse on the display does not blink the signalling “Broken Blade” . Remember at the end of the operation to loosen the hand wheel to avoid the slackening of the band .
B. Stroke adjusting headband : follow the instructions of the manual tool MACC4
C. Make sure that the piece to be cut is properly secured in the vice ;
D. Make sure that the cooling liquid is circulating in the machine . Use the taplocated on the guide shoe to regulate the flow of liquid .
E. When starting the motor , make sure that the band rotates in the direction of the arrow shown in Encl.6 .

CUTTING OPERATION

A. For other information regarding the cutting operation and machine programming , follow the supplied MACC4 instructions carefully .
B. To replace the band , carry out the same operations used to assemble the band (chapter 7c) .
C. For the choice of blade see table ENCL.1 .

ATTENTION!!!

- WE STRONGLY DISCOURAGE THE USE OF BLADES WITH RUINED OR INSUFFICIENTLY SHARP CUTTING EDGES .

8.4 SPECIAL SAFETY CHECKS

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

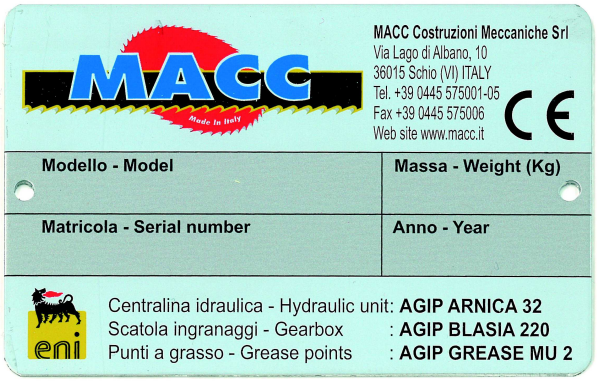
8.5 GENERAL SAFETY RULES

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

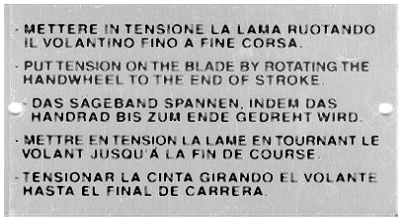
8.6 MEASURES TO PREVENT RESIDUAL RISKS

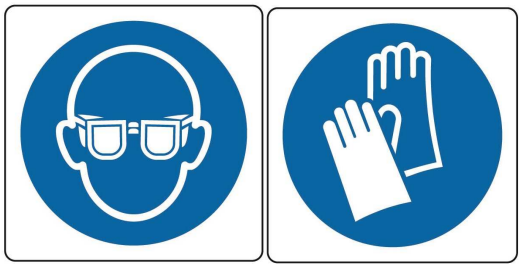
A. The removal of guards and tampering with the safety devices is strictly forbidden .
B. Gloves should always be worn .
C. Standard work clothing should be used and kept closed and should not have flapping parts .
D. The machine should not be cleaned with liquids under pressure .
E. In the event of 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





















9. MAINTENANCE AND REPAIRS

9.1 GENERAL SAFETY MEASURES

A. Lockable main switch . Use the padlock in the event of machine failure or replacement of the band . The padlock key should be entrusted to a responsible person .

B. Before carrying out any work on electrical equipment , remove the power supply plug from the control panel (disconnect voltage) .

C. Only use cables to supply power , which have a cross-section suited to the power of the machine .

D. Opening key . The keys of the machine should be kept by authorized personnel . Do not leave the keys for doors which provide access to the hydraulic or electrical parts or keys to lockable switches in easy of reach of unauthorized personnel .

E. Repairs should only be carried out by authorized personnel . Only spare parts made by the original manufacturer should be used , otherwise these could cause damage or injury .

9.2 ROUTINE CHECKS AND MAINTENANCE

FREQUENCY (working hours)	OPERATION
100 hours	Adjustment blade guide bearings
1000	Lubrication of mobile parts in the piece locking vice . (GREASE AGIP MU2)
1500	Blade drive reduction unit
50	Cleaning of the coolant tank and filter check
Monthly	Check oil in the control unit
if necessary	Add hydraulic unit oil with AGIP ARNICA 32

9.3 Description of routine maintenance

A. Adjustment of the blade guide bearings

Loosen the screw , rotate the cams cod.027/35 , so that the blade guide bushings vertically position the blade in axis (ENCL. 7) . Tighten the dowels 105 until the blade secured . Loosen the dowels slightly (about 1/10 of a turn) . Check every 3 months the existing tolerance between the blade guides , making sure that it does not exceed the blade thickness of one tenth of a millimetre , so as to avoid inexactnesses in the cut squaring . Periodically check with mounted blade that the blade guide bearings rotate freely .

B. Lubrication of mobile parts of piece locking vice

Clean and grease the mobile parts of the and vice cod 030/37 Encl.8 .

C. Blade drive reduction unit

First oil change after 500 working hours , other changes after 1500 hours (AGIP BLASIA 220) .

D. Cleaning of the coolant tank .

Empty the tanks cod. 102/37 and 008/37 (Encl.5) retrieving it from the coolant into a container for later disposal. Remove the chips and the metal powder , taking care not to spread it out over parts of the machine , particularly in the area of the engine and the box containing the electrical equipment . Fill the tank 47 with the quantity and the product previously reported .

E. Check oil in the control unit

Check the level oil in the control unit tank and add the amount necessary .

9.4 POSSIBLE INCONVENIENCES

A. Automatic cycle does not function

-If this cycle does not function , make sure that all the limit switches are energized .

B. Oblique cutting

Check the inclination of the blade using the comparator located near the saw blade guide and use the hexagon socket headless screwswhich regulate the saw blade guide , to reset the correct inclination .

C. Undulated - concave - convex cutting

-Make sure the blade is not worn .

-Adjust the blade rotation speed in relation to the material , using the speed selector (or the variator , if fitted) .

-Adjust the bow down stroke speed in relation to the material , using the cutting feed regulator .

-Check the exact alignment of the saw blade guide with the mobile guide in different positions (adjust the hexagon socket headless screws) .

10. INFORMATION REGARDING ENVIRONMENTAL NOISE

An environmental noise test carried out on the SPECIAL 391 AV band saw machine , identical to the machine to which these operation instructions refer , has given the following results :

ACOUSTIC RADIATION PRESSURE

1. L_{Aeq} = 76,7 dB (A)
2. L_{peak} = 82,7 dB (the maximum acceptable value is 140 dB) .
3. The level of background noise has no influence = 48.5-54,2 dB (A)

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

11. LAYING OFF AND DISMANTLING

11.1 LAYING OFF

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

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

11.2 DISMANTLING

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

Steel	Electrical Components	Light alloy	Cast iron	Bronze Copper	Plastic and rubber	Various
Shaft	Motors winding	Gear boxes	Structural parts	Bushings	Seals	
Rollers	Push button and Control system (relais – transformer)	Cylinders			Cable chain	
Base	Electronic panel					
Spring						

Used oil and materials must be disposed of according to 87/101/EEC Directives and to country specific regulations .
The disposal of electrical components is provided for by European Directives 2011/65/CEE .

12. LIST OF SPARE PARTS

Allegato / Encl. 5		
Pos. / Cod.	**DENOMINAZIONE**	**Q.tà**
006-A/37	Filter chip tray	1
006/37	Chip tray	1
007/37	Chip tank	1
008-A/37	Water collection tank OPTIONAL	1
008/37	Water collection tank	1
030/90	Microswitch ERSCE E10001S51	2
089/90	Motor pump PA 35 150	1
090/90	Motor pump SA/85 OPTIONAL	1
093/11	Hinge	7
102/37	Chip tank electric pump	1
103/37	Discharge chute	1
103/41	Electrical box door	1
107/41	Grating guard side	1
133/37	Fixed guard entry side	1
135/37	Plexiglass fixed guard	1
150/37	movable back guard support	1
154/37	additional front cover sheet	1
155/37	electrical level rise - OPTIONAL	1
200/37	Base	1
204/41	Hydraulic box door	1
210/01-002	Column level	1
230/37	front protection	1
231-02/37	Fixed frame front closure	1
231-03/37	Rea fixed shelter frame closure	
231-04/37	Fixed shelter	
231-05/37	Fixed shelter	
231-B/37	Front sheet fixed guard	1
232/37	back movable guard – left side	1
234/37	guard cable chain	1
239/37	lateral cover extractor	1
240/37	drip tray back extractor	1
243/37	motorized feed side guard	1
244/37	front guard	1
245/37	Laser support front bracket OPTIONAL	1
260/37	Drain chute cover	1
307-01-041	Electric level indicator OPTIONAL	1
314/90	Disconnecting switch 16A 3P	1

Allegato / Encl. 6		
006/36	Motor pulley	1
012-D/36	Bow	1
013-A/36	Bow protection hinge	1+1
014/36	Blade tightener pin	1
015/36	Idle pulley	1
016/36	Idle pulley spacer	1
022/90	Microswitch ERSCHE E100/00/AI	1
039/32	Blade tightener screw	1
040-A/06	Washer design ø45x6	1
040/06	Washer ø12,5/45x6	2
041/38	Blade tightener bush	1
046/32	Blade tightener plate	2
054/35	Bearing 6208 2RS	1
058/35	Blade tightener handwheel	1
100-B/42	Gear unit	1
103-A/32	Bearing 6207 2RS	2
108/32	Thrust bearing AS 20 35	2
109/32	Casing AXK 20 35	1
153/37	Bow guard	1
181/36	Reduction unit shaft	1
230/80	Motor M100 V230/400-50Hz 2,2kW 4P B5	1
241/37	blade guard support square	1
242/37	blade guard support plate	1
257-A/37	cable railway short metal sheet cover	1
257/37	cable railway metal sheet cover	1
330/95	Spring pin	1
355/95	Pin/Key	1

Allegato / Encl. 6		
451/95	Belleville washer 40x20,4x1,5	19
503/80	speed adjustment plate	1
SUP3200270934	Blade size LN sv. 3200x27x0,9xt3/4 Superior	1

Allegato / Encl. 7		
027-B/32	Mobile blade guide plate	1
028-Z/32	Fixed blade guide plate	1
030/96	Mini valve MF ø1/8”Gas	1
034-A/32	Mobile blade guide fastening plate	1
123/37	Sheet metal guard fixed blade guide	1
055/35	Bearing 608-2RS	2+2+2
251/37	fastening plate gib	1
GUIDAL.SB381V	bladeguide system	1
025/35	Fixed blade guide block	1
026/35	Mobile blade guide block	1
027/35	Blade guide eccentric bush	2+2
034/42	Widia plate	4

Allegato / Encl. 8		
030/37	Fixed vice	1
034/37	Piece supporting plate	1
035/37	Support spacer of piece bearing plate	2
036-A/37	Vice jaw side exit	1
036/37	Vice jaw side entry	1
037/37	Vice saddles	1+1
039-A/37	Countervice jaw exit side	1
039-D/37	Countervice jaw entry side	1
115-W/37	cover sheet fastening plate	1
148/37	Fixed vice cylinder	1
162/37	Bench	1
246/37	rear blade support bracket OPTIONAL	1
247/37	Movable bladeguide drive	1

Allegato / Encl. 9		
101/11	Swivel head M16x1.5	1
109/37	Anterior column	1
110-A/37	Anterior support skates	1
113/37	Cover anterior column	1
117/37	Attachment pin cylinder	1
125/37	Screwball block MTP 25EAAA	3
126/37	Linear guidewais MTP25/460	1
128-A/37	Cable arc chain	1
136/37	Bracket attack chain	2
207/37	Bow posterior column	1
208/37	Bow support skates	1
211/37	Bow support inclined	1
212/37	Plate closing the posterior column	1
214/37	Attack superior potentiometer	1
216/37	Bow cylinder	1
227/37	Linear guidewais MTP25ST/700	1

Allegato / Encl. 10		
002/24	Dustscraper ø50/60x7	2
014/41	Carriage rods 600mm race	2
024/40	Roller movement bush	2
024/41	Retaining washer	2
047/37	Jaw chuck carriage	1
052-W/41	Cover plate chrome rods	1
054/37	Carriage fixed vice	1
056/26	Cable chain	1
062/40	Bush Igus GFM 1214-09	4
066-A/37	Roller bracket cart	2
070/26	Bracket chain	1
104-A/36	Carriage vice slide	1
105-A/36	Carriage vice	1
106-B/36	Carriage mobile motorized support	1
116-B/36	Rear carriage rods support	1
126/36	Carriage vice bracket	2

Allegato / Encl. 10		
130-C/36	Mobile roller support	1
131-A/36	Mobile roller block	2
132/36	Support right roller mobile	1
133/36	Support left roller mobile	1
144/41	Photocell protection	1
149/37	Carriage vice cylinder	1
151/36	Bearing 6204 2Z	2
156-A/90	Reflecting	1
156-D/90	Polarized photoelectric	1
177/36	Carriage roller	3
178-A/36	Mobile roller	1
190/36	movable roller tie rod	1
191/36	movable roller tie rod washer	1
192/36	movable roller tie rod spacer	1
194/36	Carriage photoelectric cell support	1
248/37	Alignment roller bracket	1
249/37	Alignment roller	1
250/37	Alignment roller pin	1
412/95	Seeger ring	2

Allegato / Encl. 11		
038/14	Bush Igus MFM 1622-15	1
104/37	Channel chip conveyor	1
105/37	Auger	1
106/37	Plate support auger	1
237/80	Auger orbital motor	1

Allegato / Encl. 12		
088/50	Washer retainer brush	1
101-A/32	Bearing 6001 2RS	2
118/37	Support brush blade cleaner	1
119/37	Tree brush blade cleaner	1
120/37	Pin brush blade cleaner	1
121/37	Wheel brush blade cleaner	1
122/37	Wheel spacer brush blade cleaner	1
141/45	Cleaning brush	1
412/95	Seeger ring	2

Allegato / Encl. 13		
061/90	MACC-4 instrument	1
084-A/90	Single pressure reducer	1
085/90	Emergency button	1
100-A/38	Regulator	1
109-A/41	Control board	1
147-B/36	Hydraulic control panel	1
210/28-075	Touch screen 7” OPTIONAL	1
231/41	Touch instrument panel brings 7" OPTIONAL	1
400/96	Pressure gauge ø63 0/60 bar	1

Allegato / Encl. 14		
052/90	Encoder Lika	1
126/41	Material feed motor support	1
127/41	Material feed pulleys cover	1
128/41	Ballscrew's bearings bush	1
129/41	Ballscrew's bearings spacer	2
130/41	Ballscrew	1
131/41	Material feed motor pulley	1
132/41	Material feed idle pulley	1
133/41	Tooth belt	1
134/41	Motor pulley washer	1
135/41	Motor pulley inner spacer	1
136/41	Belt tightening plate	1
137/41	Encoder support	1
138/41	Encoder support elevation	2
140/41	Bearing 30204	2
143/41	Rotating shaft circlips ø35/50x8	2
220-A/80	Electric motor M71 4P B5 0,55kW 230/400V 50Hz	1
230/41	Ball screw nut	1
302/95	Ring nut	1

Allegato / Encl. 15		
042/36	Roller arm support	1
145-C/36	Roller table motorized carriage	1
149/36	Roller pin	2
150/36	Roller	2
160/36	Roller belt block	4

Allegato / Encl. 16				
Pos.	**DESCRIPTION**	**BRAND**	**CODE**	**Q.ty**
001	Electric motor M71 230-400V/50-60Hz 4p. B5 0.55kW		220-A/80	1
002	Joint K01.K3.970.TR.056	OIL SISTEM		1
003	EK1 PS 5 G (3.2 cc) pump cod. N1031306	MARZOCCHI		1
004	Suction filter FR 1.02392	FBN		1
005	Tank oil			1
006	Central manifold A1/10 cod. 101B000	OIL SISTEM		1
007	Blocs CETOP EN EM1033Y	EURO FLUID		1
008	Solenoid valve SDHI0631/2-24Vdc	ATOS		2
009	Solenoid valve SDHI0711-24Vdc	ATOS		1
010	Carriage vice cylinder	MACC	149/37	1
010-A	Fixed vice cylinder	MACC	148/37	1
011	Bow cylinder	MACC	216/37	1
012	Single pressure reducer		084-A/90	1
013	Pressure gauge ø63 0/60 bar	FIMET	400/96	3
014	Regulator bow downhill		100-A/38	1
015	Lock solenoid valve		074-C/90	2
016	Pressure reducing valve	ATOS	HG-033/32	1
017	Regulator		322/96	1
018	Orbital motor	META	237/80	1
019				
020				

Allegato / Encl. 17			
200	Door block general switch and disconnecting switch 16A 3P + Shaft 5x330+Handle	314/90	1
201	Emergency button + contacts	085/90	1
203	Remote controlled switch	310/90	2
205	RFL 10A 24Vdc power supply	315/90	1
207	Relay PANASONIC Base PANASONIC HC4	112/90 112-A/90	1 1
208	Thermal relay	053/90	2
209	Fuse block PCH 3X38	092/90	3
211	Fuse block PCH 1X38	093/90	1
212	Fuse 10x38 gG 4A	204/90	3
213	Fuse 10x38 aM 2A	356/90	3
215	Fuse 10x38 AM 10A	206/90	3+1
217	Terminals CABUR CBC.2	222/90	50
218	Terminals CABUR CBC.4	225/90	3
220	Filter RC-CDR 3/10KW-CU500V DETAS	317/90	1
225	Plate with electrical components	205/41	1
233	Commutator	018/90	1
234	Inverter kW 2,2	096/90	1
235	Inverter kW 0,75	377/90	1

Parts not visible on exploded view		
031/96	Mini valve MF ø1/4”Gas	2
054/05	Washer ø10,5/35x5	2
054/90	Hydraulic power unit	1
122-A/41	front guard locking block	1
205/41	Plate with electrical components	1

LEGEND

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We recommend to strictly follow the instructions indicated in this manual during any type of intervention on the program. In case of doubt, please contact the company:

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PRODUCT CONFIGURATION

SOFTWARE INSTALLED	EACKAC0 version 2903

HARDWARE CONFIGURATION:

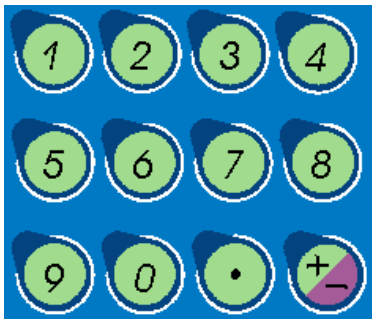
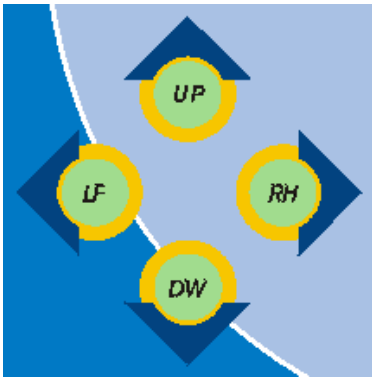
- Nr. 16 inputs PNP
- Nr. 16 outputs PNP
- Nr. 1 encoder input
- Nr. 1 analog input from potentiometer, serial RS485

DESCRIPTION OF THE FRONT PANEL

The MACC4 is equipped with a front panel including a keyboard with 30 keys and an alphanumeric display, with backlight, 4 lines by 20 columns.

KEYBOARD

The MACC4 has a keyboard of 30 keys; some of them perform the same function in any application, while specific functions are associated to other keys, for the software installed in the programmer:

	The numeric pad of the MACC4 allows to enter all necessary numeric data . The key <.> allows to enter the decimal part, while <**+/-**> allows to enter negative numbers.
	The keys **< UP > < DW >** for the vertical scrolling of a set of data; The keys **< LF > < RH >** are used for horizontal scrolling of a set of data and to shift from an output to the previous/following one in the environment "**Test I/O**";
	It allows to start the zeroing of axis position, the start of the semiautomatic cycle, the start of the automatic cycle and the confirmation of the introduction of "**Level prog.**" in the "**SEMIAUTOMATIC**" environment, immediately before the start of the execution of the cycle itself. In the test of the outputs, it changes the status of the output selected.

	It rejects the request of zeroing start for the axis position; it allows to exit all the environments (but does not allow to toggle from the "**AUTOMATIC**" <-> "**SEMIAUTOMATIC**"environment, and vice versa); it cancels an introduction not yet confirmed and interrupts the execution of a cycle (either in "**AUTOMATIC**" or in "**SEMIAUTOMATIC**").
	Allows to enter the "**AUTOMATIC**" or "**SEMIAUTOMATIC**" environment or to toggle between them.
	When pressed in the "**AUTOMATIC**" environment it is activated the "**DATA PROGRAMMING**"mode; if in "**SEMIAUTOMATIC**"environment, the mode is "**FIXED DATA ENTERING**".
	It confirms the introduction of a numeric data in all the environments in which such operation is forecast, in the "SEMIAUTOMATIC" environment, opens the possibility to enter a level of program which the carriage must follow.
	Sets to zero a data entering, when it is possible. Opens the "**Test**" environment, from the page of "**SEMIAUTOMATIC**" and immediately after switching ON.
	Changes the movement speed of the carriage in the execution of the automatic cycle, and in the "**SEMIAUTOMATIC**" environment when it is entered a level of programming.
	Activates the oil pump, in the "**SEMIAUTOMATIC**" environment.
	It commands the uprise of the blade, in the "SEMIAUTOMATIC" environment.

	It commands the closing of the fixed jaw, in the **"SEMIAUTOMATIC"** environment.
	It commands the slow advancement of the carriage, in the "**SEMIAUTOMATIC**" environment. If accompanied by the key  the movement of the carriage is accelerated.
	It commands the closing of the mobile jaw, in the "SEMIAUTOMATIC" environment.
	It commands the descent of the blade, in the "SEMIAUTOMATIC" environment.
	It commands the opening of the mobile jaw, in the "SEMIAUTOMATIC" environment.
	It commands the slow backwards movement of the carriage, in the "**SEMIAUTOMATIC**" environment . If accompanied by the key  the movement of the carriage is accelerated.
	It commands the opening of the fixed jaw, in the **"SEMIAUTOMATIC"** environment.

SYSTEM EACKAC0 - DESCRIPTION OF THE CONNECTIONS

POWER SUPPLY		
Name	**Function**	**Description**
+24V	Power supply +24Vdc	1 TO stabilized +- 10%
0V	Mass	
Ground	Ground	Protected

The system must be power supplied with +24 V DC (+-10%), 1A and must be connected to the protected ground of the plant through a cable with suitable diameter.
The inlet of power supply is supplied with the programmer.

ANALOG CONNECTOR			
Number POLO	**Name**	**Function**	**Description**
61	Sheath	Pin of connection for screen sheath	
62	Vref	Power supply of potentiometer	
63	GNDB	0V Power supply	
64	IN B	Analog input B	Not used
65	IN A	Analog input A	Eventual blade potentiometer
66	Sheath	Connection pin of screen sheath	
67	OUT B-	+/- 10V Axis Y (Ref -)(*)	Not used
68	OUT B+	+/- 10V Axis Y (Ref +)	Not used
69	OUT A-	+/- 10V Axis X (Ref -)(*)	Not used
70	OUT A+	+/- 10V Axis X (Ref +)	Not used

(*) Connect to GNDB if the differential analog output is not used

CONNECTOR FOR ENCODER INPUTS

	Name	Function
1	CAX	Channel A axis X
2	CAXN	Channel /A axis X
3	CBX	Channel B axis X
4	CBXN	Channel /B axis X
5	CZX	Not used
6	CZXN	Not used
7	+5V	Power supply voltage of Encoders at 5V
8	+12V	Power supply voltage of Encoders at 12V
9	GNDB	Mass
10	Sheath	Connection pin of screen sheath
N°	Name	Function
11	CAY	Not used
12	CAYN	Not used
13	CBY	Not used
14	CBYN	Not used
15	CZY	Not used
16	CZYN	Not used
17	+5V	Power supply voltage Encoders at 5V
18	+12V	Power supply voltage Encoders at 12V
19	GNDB	Mass
20	Sheath	Connection pin of screen sheath

INPUTS type PNP - n.c.: normally closed disp.: available

Connectors to extractable terminals \of 10 poles

POLE number	DESCRIPTION	TEST I/O
41	EMERGENCY (n.c.)	1
42	MOTOR THERMAL SWITCH (n.c)	2
43	BLADE BREAKAGE (n.c.)	3
44	CARTER OPEN (n.c.)	4
45	Not used	5
46	Not used	6
47	Not used	7
48	END OF STROKE FORWARD CARRIAGE	8
49	+24 Volt (common of the inputs)	
50	Mass	
51	END OF STROKE BACKWARDS CARRIAGE	9
52	END OF STROKE BLADE HIGH	10
53	END OF STROKE BLADE LOW	11
54	EMERGENCY - BAR MISSING	12
55	EMERGENCY - HANDLE (n.c.)	13
56	OIL THERMAL SWITCH (n.c.)	14
57	Not used	15
58	FAN/CHIPS THERMAL SWITCH(n.c.)	16
59	+24 Volt (common of the inputs)	
60	Mass	

OUTPUTS type PNP - disp.: available

Connectors to extractable terminals of 10 poles

POLE number	DESCRIPTION	TEST I/O
21	CARRIAGE FORWARD SLOW	1
22	CARRIAGE BACKWARD SLOW	2
23	Not used	3
24	OPENING/CLOSING CARRIAGE JAW	4
25	BLADE UP	5
26	BLADE DOWN	6
27	BLADE MOTOR ACTIVATION	7
28	OIL PUMP ACTIVATION	8
31	Not used	9
32	OPENING/CLOSING FIXED JAW	10
33	WATER PUMP ACTIVATION	11
34	CARRIAGE FORWARD FAST	12
35	CARRIAGE BACKWARD FAST	13
36	CHIPS CLEANING	14
37	Not used	15
38	Not used	16
29 30	External power supply +24 Volt Mass	
39 40	External power supply +24 Volt Mass	
99 100	External power supply +24 Volt Mass	

DESCRIPTION OF THE INPUTS		
Test number	**POLE number**	**Input Description**
1	41	Upon the de-activation of this input, it is interrupted the working cycle and signaled the message "Emergency Button".
2	42	Upon the activation of this input it is interrupted the working cycle and signaled the message "Motor thermal switch".
3	43	Upon the de-activation of this input, it is interrupted the working cycle and signaled the message "Blade rupture".
4	44	Upon the de-activation of this input, it is interrupted the working cycle and signaled the message "Carter Open".
8	48	The de-activation of this input signals that it has been reached the maximum limit forward of the carriage.
9	51	The de-activation of this input signals that it has been reached the maximum limit backward of the carriage.
10	52	The de-activation of this input signals that it has been reached the maximum limit up of the blade.
11	53	The de-activation of this input signals that it has been reached the maximum limit in descent of the blade.
12	54	The de-activation of this input signals that a piece in the jaw is not existing.
13	55	Upon the de-activation of this input, it is interrupted the working cycle and signaled the message "HANDLE".
14	56	Upon the activation of this input it is interrupted the working cycle and signaled the message "OIL THERMAL SWITCH"
16	58	Upon the activation of this input it is interrupted the working cycle and signaled the message "FAN/CHIP THERM."

DESCRIPTION OF THE OUTPUTS		
Test Number	**POLE number**	**Output Description**
1	21	Command carriage FORWARD SLOW
2	22	Command carriage BACKWARD SLOW
3	23	Not used
4	24	Not used
5	25	Command blade up
6	26	It commands the descent of the blade
7	27	It commands the activation of the blade motor (enabling)
8	28	It commands the activation of the oil pump
9	31	Not used
10	32	It commands the opening / closing of the piece-blocking jaw
11	33	It commands the activation of the water pump
12	34	It commands the carriage fast forward
13	35	It commands the carriage fast backward
14	36	It commands the chips cleaning.
15	37	Not used
16	38	Not used

SOFTWARE INSTALLED : EACKAC0

ZEROING

Upon the switching ON, the program asks if you wish to perform the zeroing.
Press:

	to send the carriage to the rebate and perform the zeroing;
	to skip this phase;
	to reach the test environment of the instrument.

TEST

This environment allows to test all the components of the program. Press:

	To test the inputs and the outputs of the MACC4. (*TEST I/O*). Here it is possible to scroll the number of the outputs to be tested, pressing the arrows right and left, and change their status pressing <**START**>. The line "**IN :**" indicates continuously the status of the inputs detected.
	To test the correct operation of the keyboard. (*TEST KEYBOARD*) Pressing a key, it is displayed the function of the key itself. Caution: the key <**STOP**> is ALSO the output key: it is displayed "**STOP**", until it is pressed; when releasing it, it is performed the exit from the environment.
	Sets to zero all data existing in the memory. (*ZEROING RAM*)
	Allows to read the software version loaded in the clock. (*SOFTWARE VERSION*)
	Allows to test the contrast of the display. (*CONTRAST*) Inside, press "**RIGHT**" and "**LEFT**"

MANUAL / SEMIAUTOMATIC

In this environment you have the possibility to:

- command all the parts of the machine in manual mode:
  - open and close the jaws (fixed and mobile);
  - move the carriage in the direction of the blade or in the opposite side;
  - move the carriage to an insertable level;
  - move the arc of the blade to the top or to the bottom;
  - switch OFF/ON the oil central unit;
- perform a cutting cycle that foresees the sequence:
  - blade motor switching ON;
  - blade descent ;
  - blade up;
  - blade switching OFF (according to the configuration forecast in the fixed data);
- wash the machine, de-activating all the outputs, except the pump of water and that of oil (if previously activated).

The first operation "mode", may be obtained by using the upper left part of the keyboard.
Each of the pushbuttons located in this part of the panel, in fact, as explained in the introduction of the keyboard, performs one and only one specific function. You just need, then, to press the pushbutton to obtain the desired effect, e.g. a manual movement of the carriage, instead of the blade or of the jaws. Of course, during the execution of any movement, the possible emergencies are continuously monitored; if one of them is activated, the action shall be interrupted. In this environment it is possible to manage the switching ON and the switching OFF of the oil pump always through the customized key <**OIL**>.

To perform a cutting cycle, it is necessary to press the key <**START**>. In this way, the blade starts to turn, then it descends until it reaches the end of stroke, or the minimum calibration point if the blade is managed with a potentiometer. Upon its triggering, the opposite movement to the top is started.
It is possible to interrupt the cycle, besides with the emergencies, by pressing the key <**STOP**>. After stopping the cycle with the key <**STOP**> it is then possible to resume it by pressing <**START**>.
The correct execution of the cycle is signaled through the blinking message "**Cycle correctly performed**" at the end of the same.

To perform the shifting of the carriage to an X level, it is necessary to press the key <**ENTER**>. In this way, appears a text line on the display for the introduction of the level which you wish the carriage to reach. Pressing <**START**>, it is performed a check about the correct position of the level just entered, compared to the maximum level stored in the "**FIXED DATA**". If from this check an "impossible" movement comes out, the positioning shall be cancelled and the level ignored.
If, on the contrary, this check does not involve cancellations, the programmer starts the movement up to the level programmed, to continue then with the execution of the cutting.

In the end, if the cycle has correctly come to an end, it shall be displayed the message of correct execution of the cycle.
The movement speed of the carriage may be checked through the key <**FAST / SLOW**> represented by the iconography hare/turtle: it is not possible to perform an adjustment "on the fly" but only to book, before the movement of the carriage LN a slow movement, and VL for a fast one.

In order to wash the machine, keep pressed <**REFRIGERATING**> for about five seconds. It appears the message "**WASHING ENABLING**", so that all output activations are removed.
To exit, press <STOP>. During this phase, the emergencies are checked, and an eventual presence of them shall stop the pump. Pressing it, but not keeping pressed the key of <**REFRIGERATING**> it is possible to book the use of the refrigerating during the semiautomatic cutting.

We remind, furthermore, that from this environment it is possible to:

▪Shift to the "**AUTOMATIC**" mode, by pressing:



▪Enter the programming environment "**FIXED DATA**", by pressing:



FIXED DATA

From the "**SEMIAUTOMATIC**" environment, it is possible to enter in the "**FIXED DATA**" .
Here the working data of the machine that can be modified are shown.
Here below we list such parameters:

1) Parameter for the correction of the carriage positioning error (level of clearances recovery)
2) BrakeUP: inertia of the carriage in the forward movement
3) BrakeDown: inertia of the carriage in the backwards movement.
4) Distance from the arrival level upon which the carriage shall slow down during the forward movement
5) Distance from the arrival level upon which the carriage shall slow down during the backwards movement
6) Blade thickness
7) Maximum level the carriage may reach
8) Minimum level the carriage may reach
9) Tolerance on the encoder resolution.
10) Operation of the blade motor during the uprise and descent of the blade
11) Level slowly run when the carriage reaches the rebate
12) Language: allows to select the language of the messages displayed
13) Tolerance of the positioning of the blade at the maximum height during the use of the potentiometer
14) Measuring unit for the quotations on the axis (mm/cm/inches)

The data entering may be obtained, once the cursor is positioned with the arrows on the data to be written, by keying-in directly the new value and confirming it with <**ENTER**>.
If this is not possible, for the parameter selected, perform a numeric entering; just pressing the key <**ENTER**> you will have the possibility to scroll all possible settings (e.g. during the setting of the language).

AUTOMATIC ENVIRONMENT

The "**AUTOMATIC**" environments allow to load a program (which can be set from the "**PROGRAMMING**" environment) and to perform it. This operation involves the command of the jaws, of the carriage movement and of the actual cutting performance (including the heading cutting).

The programmer keeps constantly under control the status of the emergencies, blocking the execution of the cycle and informing the operator about the type of alarm which has been detected.

At the entrance of the "**AUTOMATIC**" environment, through the key <**AUTO-MAN**>, the programmer shows a screen made of:

- Number of the program currently selected (variable from 1 to 10) ("**PROG N:**");
- Number of the next line which shall be performed if it is launched the automatic cycle ("**LIN. N:**");
- Length of the next piece ("**QP**");
- Actual level at which the carriage is located ("**QR**");
- The number of missing pieces to complete the execution of the line in progress ("**Pz TO BE MADE:**");
- The number of cut pieces in the current line ("**Pz MADE :"**)
- Bypressing the button 1 you enter into the enviroment height pieces , where you set the real height of the workpiece , press ENTER to confirm (this function is only for vertical machine) .

The machine logic of movement is the following: the machine performs the calibration on the forward and of stroke and from there it performs all positionings operating backwards, for each single piece to be performed; we should imagine, for example, to perform a piece of 100mm and one of 200mm: the machine reaches level 100 and brings forward the piece to be cut until the rebate, then it is ready to go backwards to level 200 to get again the following piece and bring it forward until the rebate. And so on...

In this environment, it is possible to perform the following actions:

- Return to the "**SEMIAUTOMATIC**" environment, by pressing the key <**AUTO-MAN**>;**;**
- Start the program currently selected, by pressing the key <**START**>;
- Stop the execution of the cycle currently in progress (key <**STOP**>);
- Scroll the current number of program (keys <**UP**> to increase, <**DW**> to decrease);
- Scroll the number of current line (keys <**RH**> to increase, <**LF**> to decrease;
- Shift to the programming environment, through the key <**PROG-INS DATA**>.

Caution: if it is started a cycle previously stopped, the program asks if you wish to resume it. Pressing <**START**> the cycle is resumed. Pressing <**STOP**> it starts from the beginning. It is possible to resume a cycle after it has been interrupted, with the key <**STOP**>, due to an emergency or if there was a power failure. In case the cycle has been interrupted due to **"MATERIAL MISSING"** the cycle restarts from the point in which it was interrupted, performing automatically the heading cutting. If on the contrary, a heading cutting was interrupted, the cycle restarts from the beginning.

PROGRAMMING

From "**AUTOMATIC**", it is possible to enter in the "**PROGRAMMING**" environment, pressing the key <**PROG-INS DATA**>. Here, it is possible to set the program which is currently selected in "**AUTOMATIC**" to program its twenty lines.

The screen shows a first line containing the number of the program currently selected; other three lines to shows to the user the lines of program which allow to define the automatic cutting cycle. They are structures in the shape: length of the piece to be cut by number of pieces of that size.

It is possible to scroll the various elements with the keys of direction <**UP**>,<**DW**>,<**LF**> and <**RH**>, to reach the numeric level you wish to modify.
Using, then, the numeric pad, you may enter the new data. To confirm them, press <**ENTER**>.

MACC4 provides 10 programs with 20 configurable lines for each program. The programs are stored in memory even though MACC4 is switched OFF.
To return to the automatic environment **press <STOP>.**

EMERGENCY MANAGEMENT

Immediately after the switching ON (then, immediately after "responding" to the request of axis zeroing") until the switching OFF, the programmer performs a continuous monitoring of the status of emergency inputs.

In all the environments in which it is contemplated the movement of any part of the machine, the detection of an emergency involves the instantaneous interruption involves the instantaneous interruption of all the outputs and the display of a blinking string which identifies which emergency has been detected.

This status remains until the emergency shall be restored, (and from this moment the string stops blinking) until it is pressed the key <**STOP**> (to indicate to the programmer that you wish to effectively return from the status of emergency).

Caution:

- in the "**MANUAL/SEMIAUTOMATIC**" environment the emergencies of "**BROKEN BLADE**" , "**CARTER OPEN**" and "**HANDLE ON**" are not signaled. This is made to give the possibility to continue to operate through manual operations in order to allow more easily the reset of the emergency. In this case it is also blocked any attempt to perform the automatic cutting cycle accessible through the key **<START>**.

  In the "**AUTOMATIC**" environment the previous three emergencies block the automatic cycle programmed.

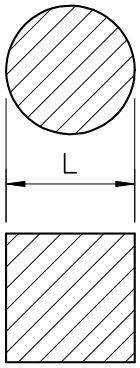
  In both cases, simply pressing the key <**STOP**>, you return to the "**MANUAL/SEMIAUTOMATIC**" environment to allow to reset the emergency with the manual movements.
- In the "**AUTOMATIC**" environment the emergency of "**MISSING BAR"** (material end) may be managed in two different ways according to how you set the hidden fixed data "**Eme.barra**" which may have two values: <**FORWARD**> or <**BACKWARD**>.

  In the first case, upon the emergency signaling, the carriage of the fixed mobile jaw is brought in position of zeroing and the jaw is open, while in the second case the carriage remains stopped and the jaw is open. Furthermore, in both cases, no matter which is the setting of the blade motor management, this is stopped until the emergency reset. To reset the emergency, the specific instructions are shown on the display.

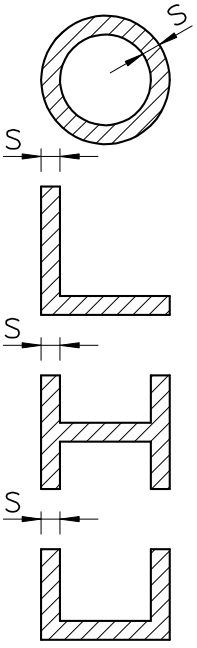
CAPACITA' DI TAGLIO – Special 391–AV

CAPACITA' DI TAGLIO CUTTING CAPACITY - CAPACITE DE COUPE SCHNITTKAPAZITAET - CAPACIDAD DE CORTE	●	○	□	a b axb
0°	230	300	300	300 x 320

SCELTA DELLA LAMA – SELECTION OF BLADE
CHOIX DE LA LAME – WAHL DER SAGEBLATTER
SELECCIÓN DE LA HOJA



L mm	Zx1"	Zx1" Zx1"
≦40	8	6/10
>30<80	6	5/8
>60<90	4	4/6
≦100	3	3/4

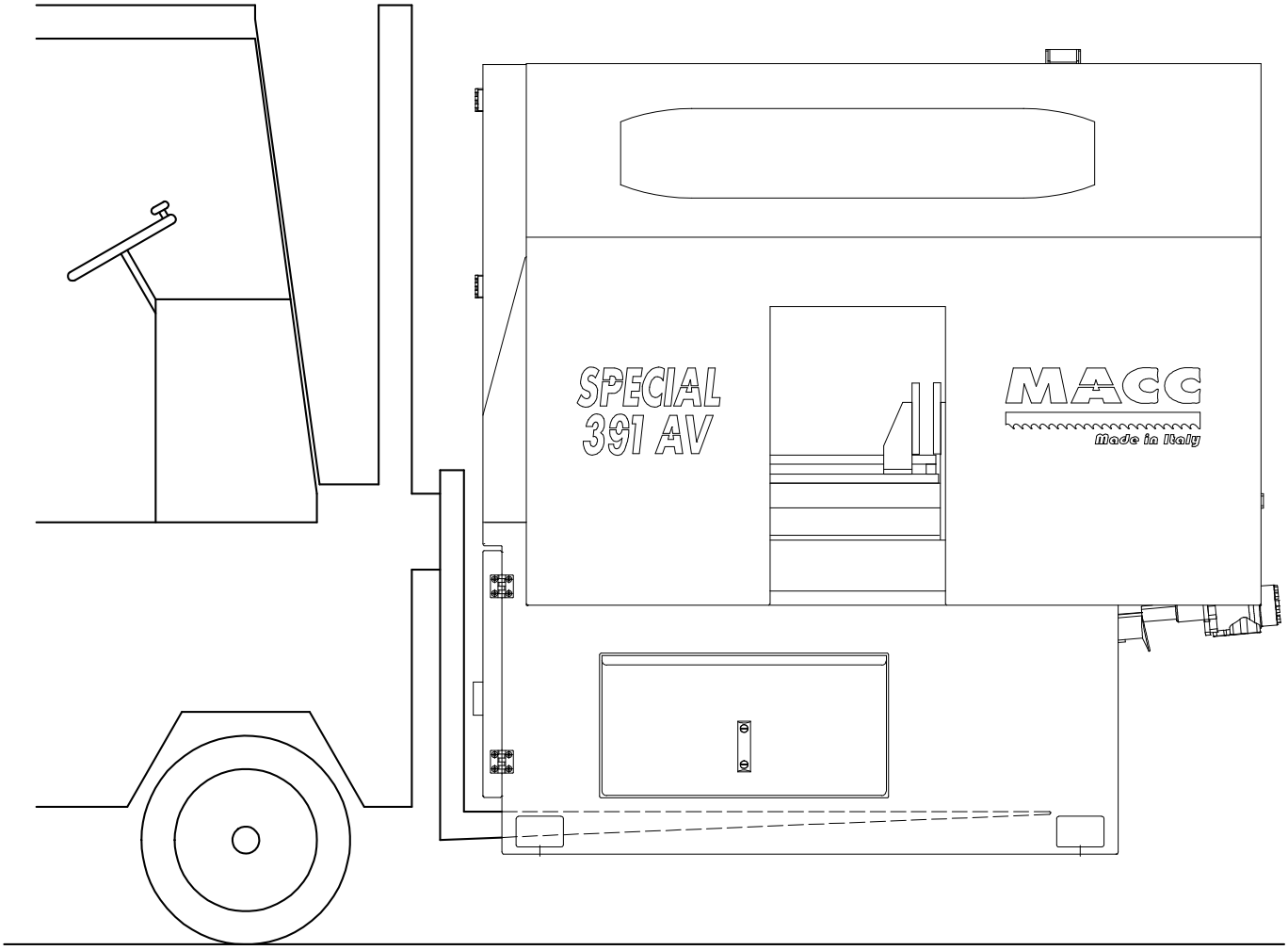


S mm	Zx1"	Zx1" Zx1"
≦1,5	14	-
>1<2	10	10/14
>2<4	8	8/12
>4<8	6	6/10
>6<12	6	5/8
≦12	4	4/6

Velocità di taglio	**0–90 m/1'**
Cutting machine	**0–90 m/1'**
Vitesse de coupe	**0–90 m/1'**
Schnittgeschwindigkeit	**0–90 m/1'**
Velocidad de corte	**0–90 m/1'**
Materiale Material Materiel Material Material	Velocità di taglio m/1' Cutting machine m/1' Vitesse de coupe m/1' Schnittgeschwindigkeit m/1' Velocidad de corte m/1'
Acciai da costruzione Fe37+Fe42 Structural steel Fe37+Fe42 Aciers de costruction Fe37+Fe42 Baustahl Fe37+Fe42 Acero de costruccion Fe37+Fe42	Pieni Solid Pleins Volles Material Pies **70–80** Profilati Structural steel Profilés Profile Perfiles **70–80**
Acciai da costruzione Fe50+Fe70 Structural steel Fe50+Fe70 Aciers de costruction Fe50+Fe70 Baustahl Fe50+Fe70 Acero de costruccion Fe50+Fe70	**70–80**
Acciai al carbonio C40+C60 Carbon steel C40+C60 Aciers au carbone C40+C60 Kohlenstoffstahl C40+C60 Acero de carbono C40+C60	**70–80**
Acciai legati Alloyed steel Aciers allié Legierter Stahl Acero aleado	**30–40**
Acciai inox Stainless steel Aciers inoxydables Rostfreier Stahl Acero inoxidable	**30–40**
Ghisa grigia Grey cast iron Fonte grise Grauguß Fundiciòn gris	**70–80**
Leghe d'alluminio Alluminium alloys Allieges d'aluminium Legierungen aus Aluminium Aleaciòn de Aluminio	**70–80**
Bronzi Bronze Bronze Bronze Bronces	**70–80**

MOVIMENTAZIONE E TRASPORTO

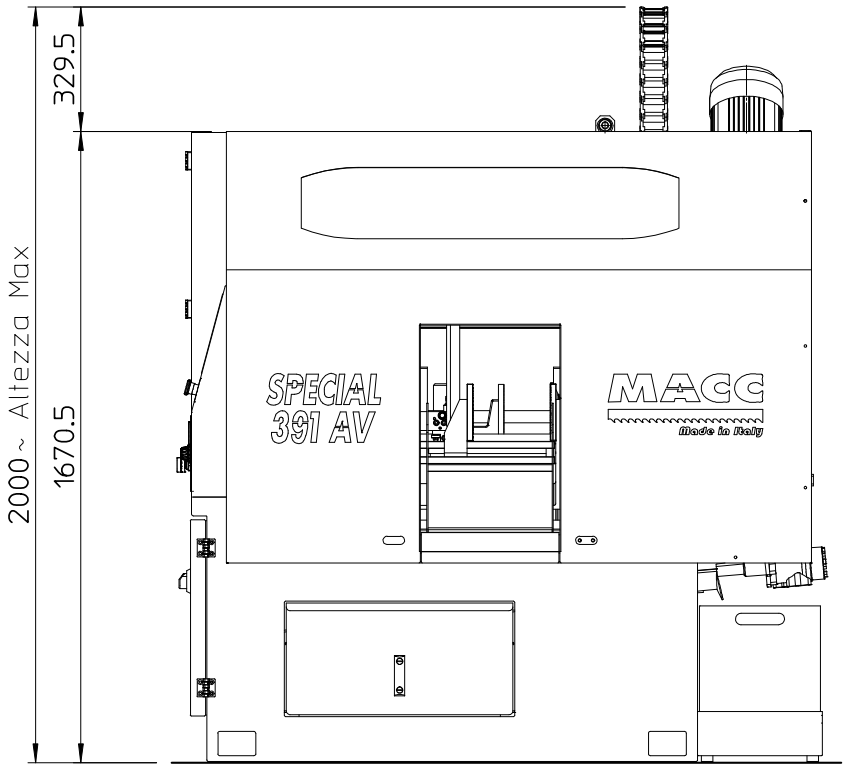
Handling and transportation
Manutention et transport
Handhabung und Transport
Movilizacion y transpórte

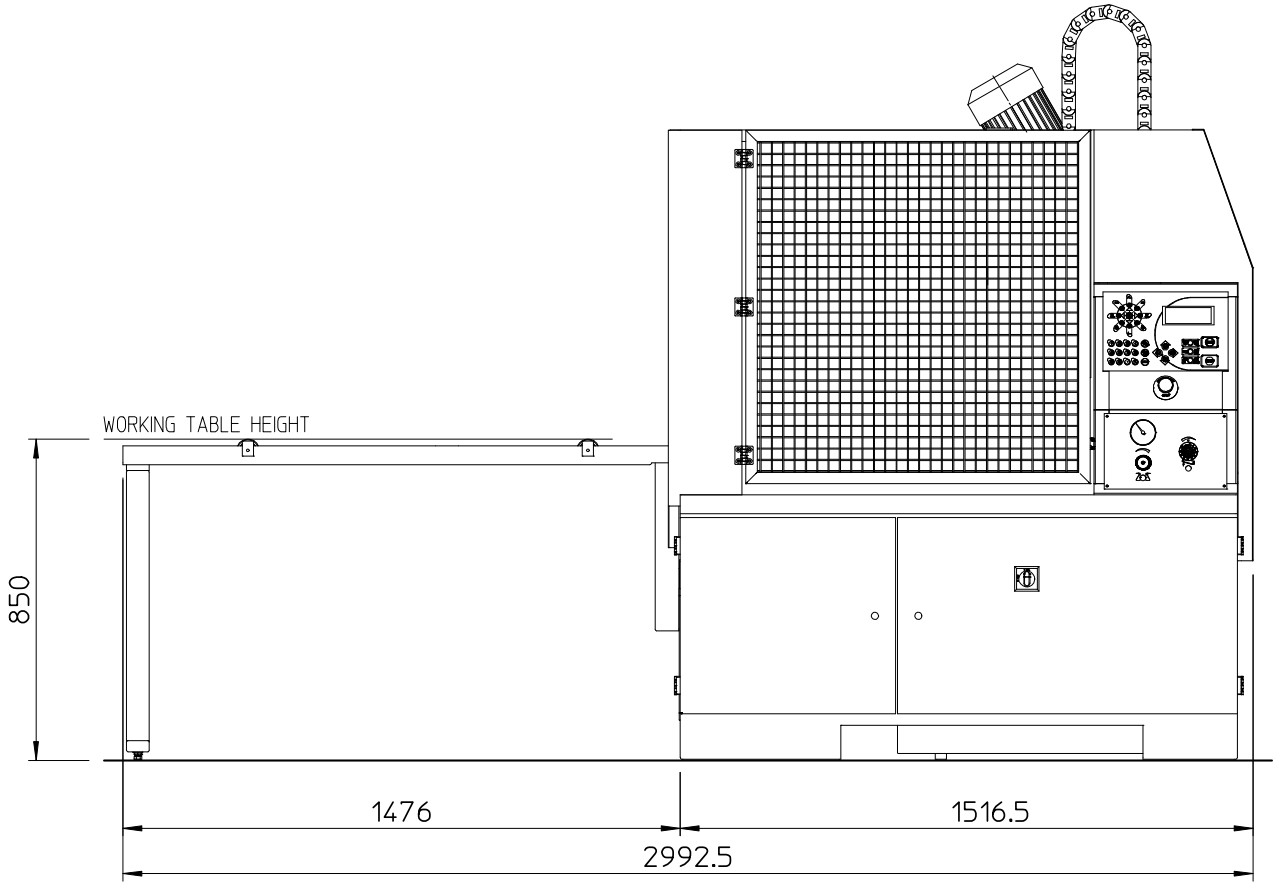


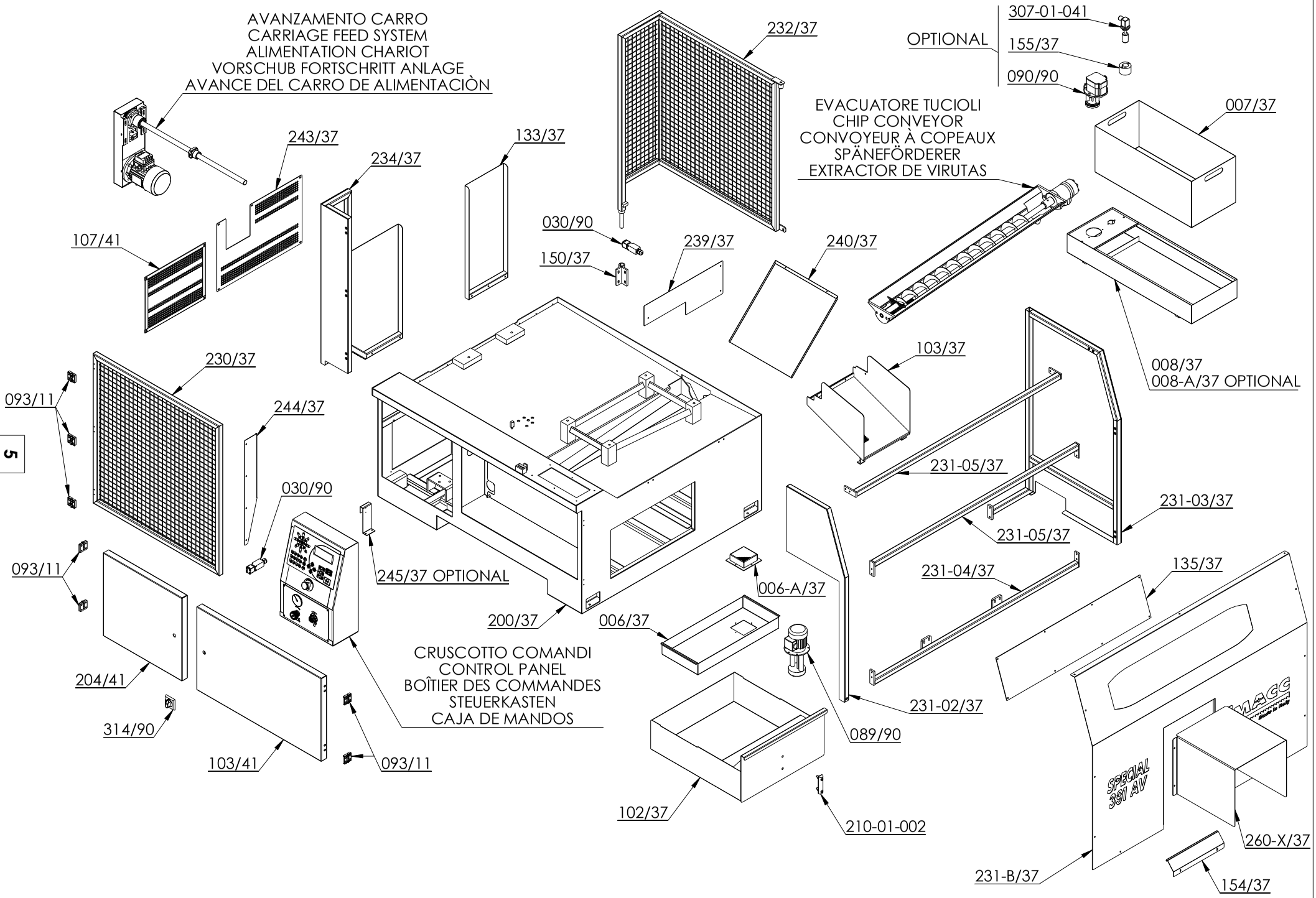
1110 kg~ - 10880 N~

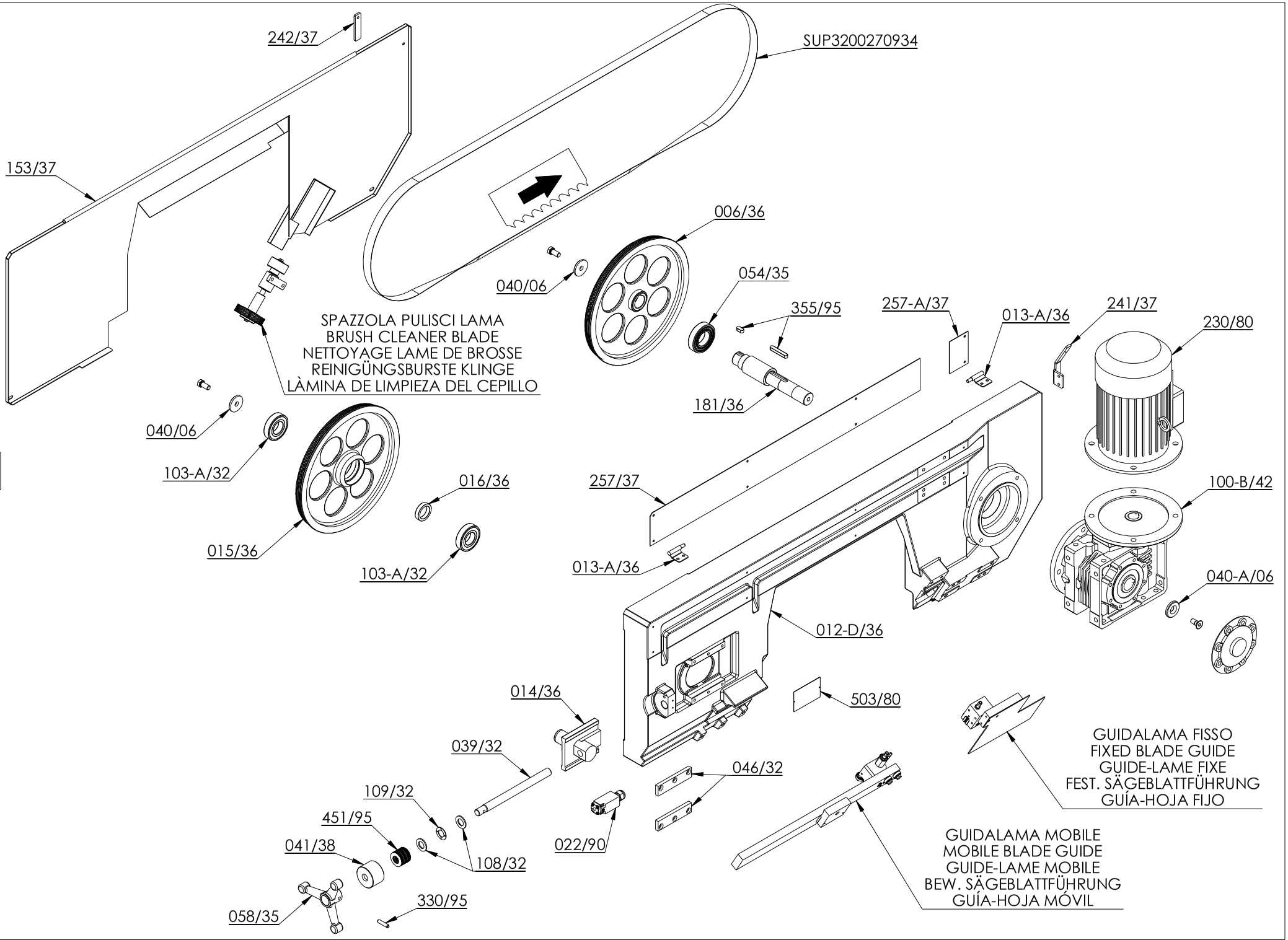
DIMENSIONI D'INGOMBRO ED INSTALLAZIONE

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

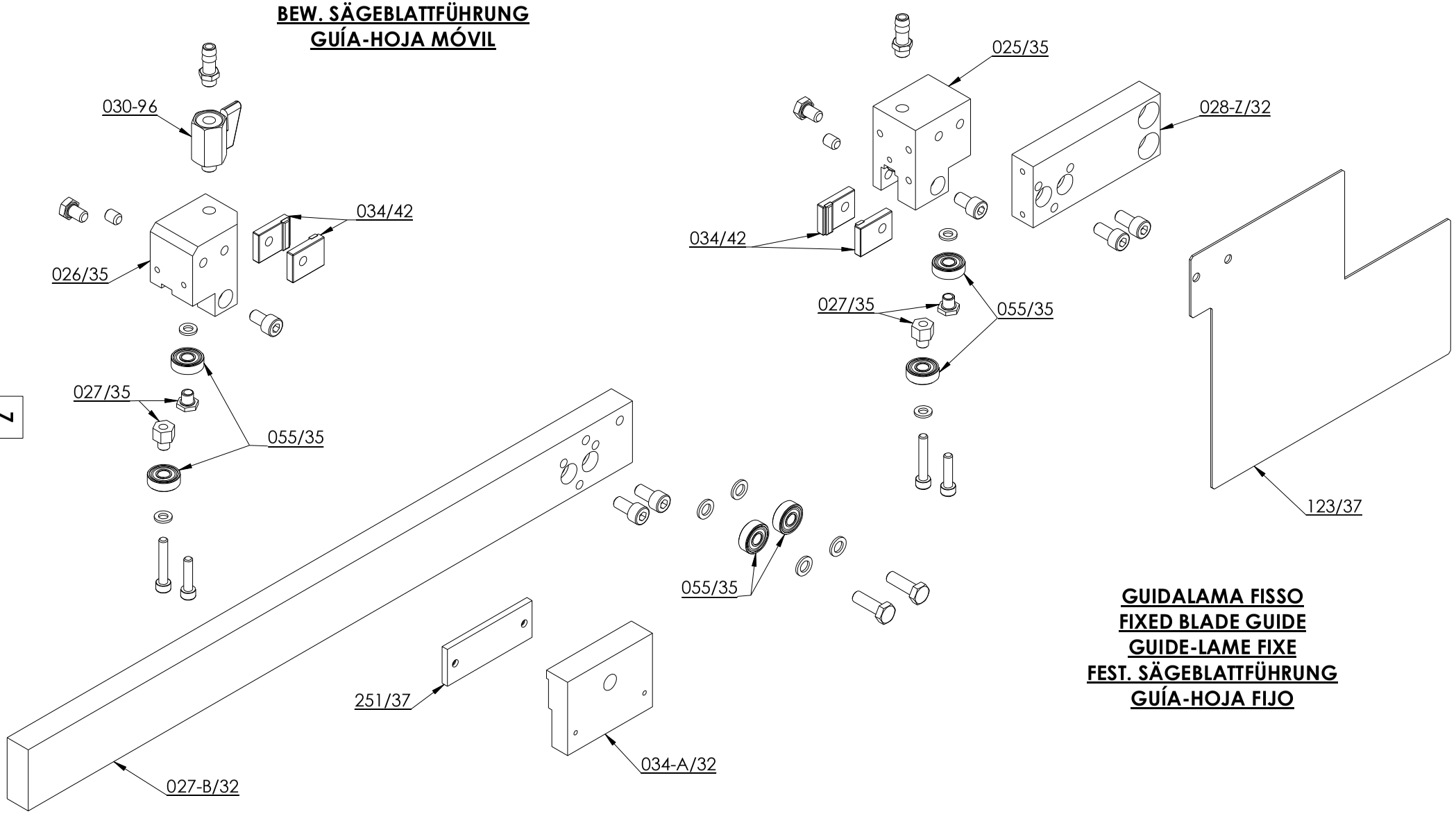




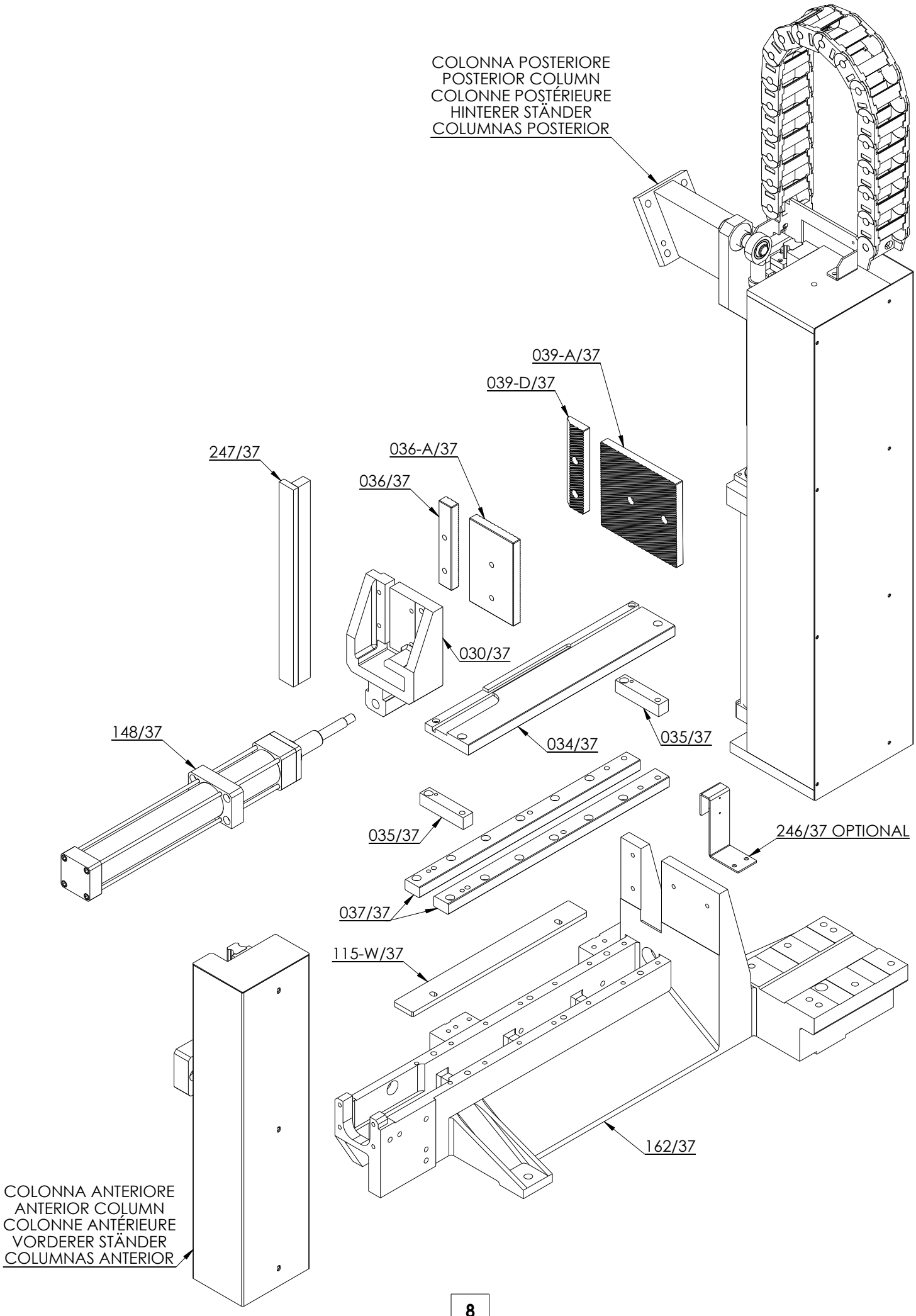

AVANZAMENTO CARRO
CARRIAGE FEED SYSTEM
ALIMENTATION CHARIOT
VORSCHUB FORTSCHRITT ANLAGE
AVANCE DEL CARRO DE ALIMENTACIÒN
243/37
234/37
133/37
232/37
107/41
030/90
150/37
239/37
240/37
OPTIONAL
307-01-041
155/37
090/90
EVACUATORE TUCIOLI
CHIP CONVEYOR
CONVOYEUR À COPEAUX
SPÄNEFÖRDERER
EXTRACTOR DE VIRUTAS
007/37
008/37
008-A/37 OPTIONAL
230/37
093/11
244/37
030/90
103/37
231-05/37
231-03/37
231-05/37
245/37 OPTIONAL
200/37
006-A/37
231-04/37
135/37
006/37
093/11
204/41
314/90
103/41
093/11
CRUSCOTTO COMANDI
CONTROL PANEL
BOÎTIER DES COMMANDES
STEUERKASTEN
CAJA DE MANDOS
231-02/37
089/90
102/37
210-01-002
SPECIAL 391 AV
260-X/37
231-B/37
154/37


242/37
SUP3200270934
153/37
006/36
040/06
054/35
355/95
257-A/37
013-A/36
241/37
230/80
SPAZZOLA PULISCI LAMA
BRUSH CLEANER BLADE
NETTOYAGE LAME DE BROSSE
REINIGÜNGSBURSTE KLINGE
LÀMINA DE LIMPIEZA DEL CEPILLO
181/36
040/06
103-A/32
016/36
257/37
100-B/42
015/36
103-A/32
013-A/36
040-A/06
012-D/36
014/36
503/80
039/32
046/32
109/32
451/95
041/38
108/32
022/90
GUIDALAMA FISSO
FIXED BLADE GUIDE
GUIDE-LAME FIXE
FEST. SÄGEBLATTFÜHRUNG
GUÍA-HOJA FIJO
GUIDALAMA MOBILE
MOBILE BLADE GUIDE
GUIDE-LAME MOBILE
BEW. SÄGEBLATTFÜHRUNG
GUÍA-HOJA MÓVIL
058/35
330/95

GUIDALAMA MOBILE
MOBILE BLADE GUIDE
GUIDE-LAME MOBILE
BEW. SÄGEBLATTFÜHRUNG
GUÍA-HOJA MÓVIL

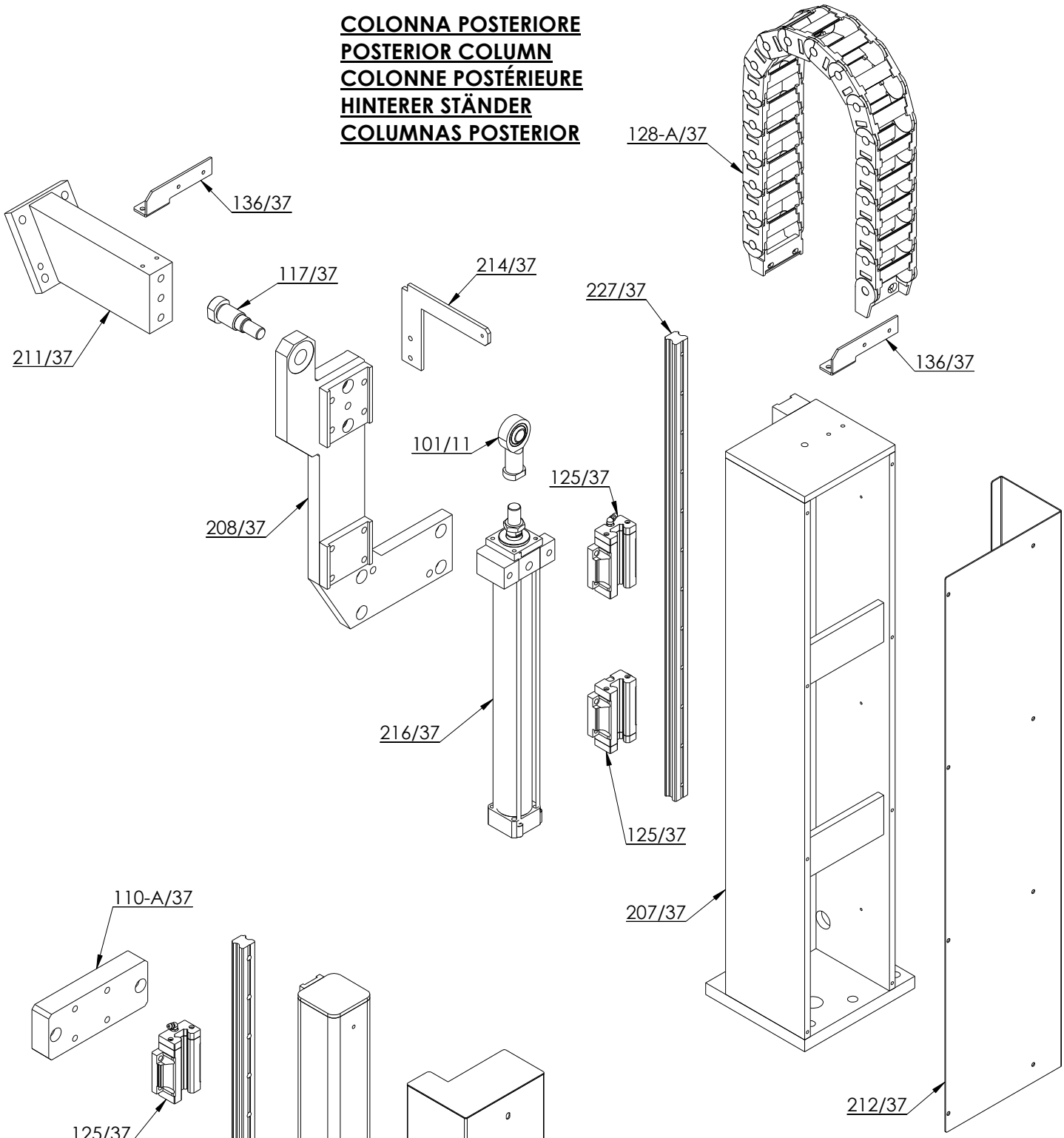


GUIDALAMA FISSO
FIXED BLADE GUIDE
GUIDE-LAME FIXE
FEST. SÄGEBLATTFÜHRUNG
GUÍA-HOJA FIJO

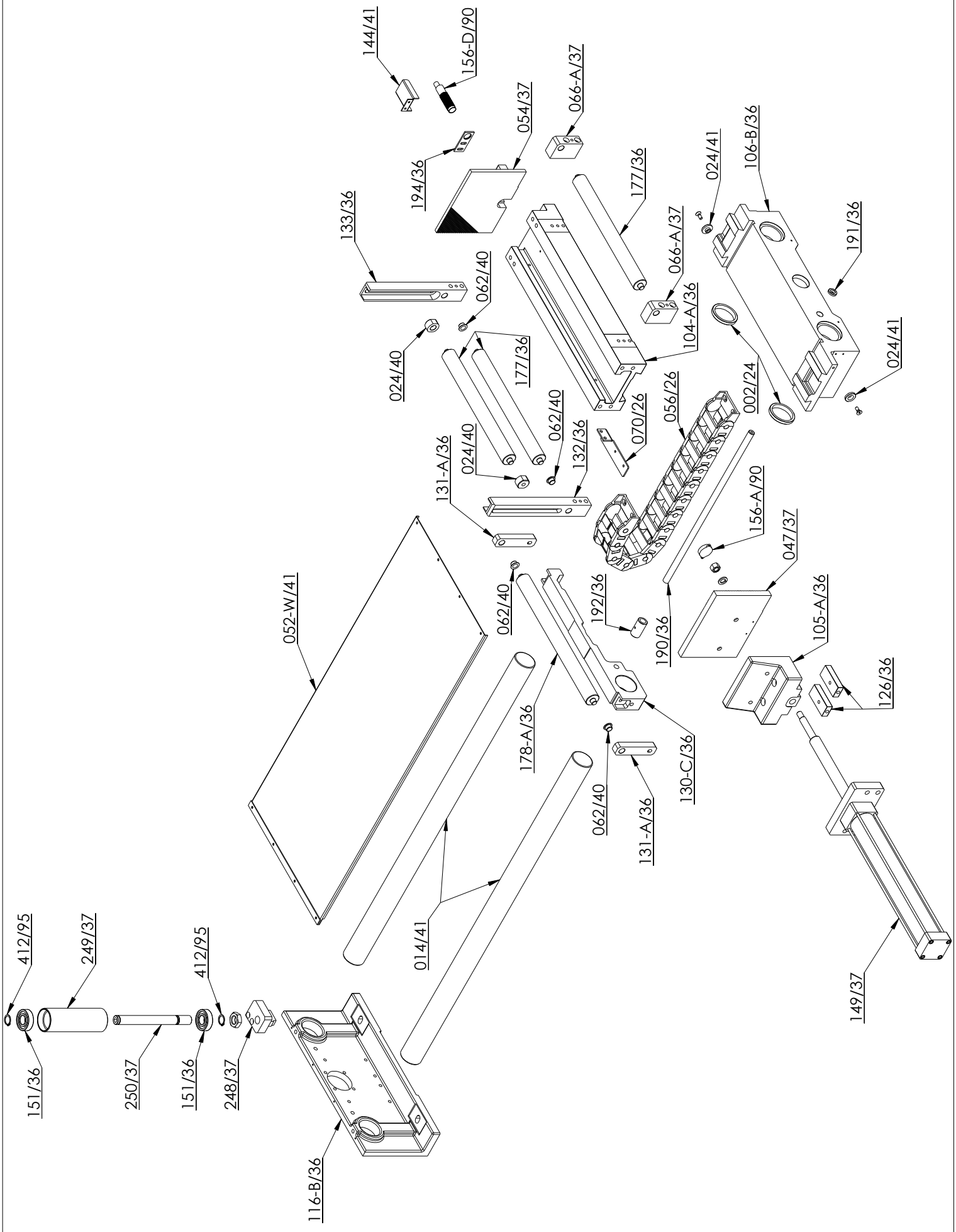


BANCO	BENCH	BANC	BANK	BANCO

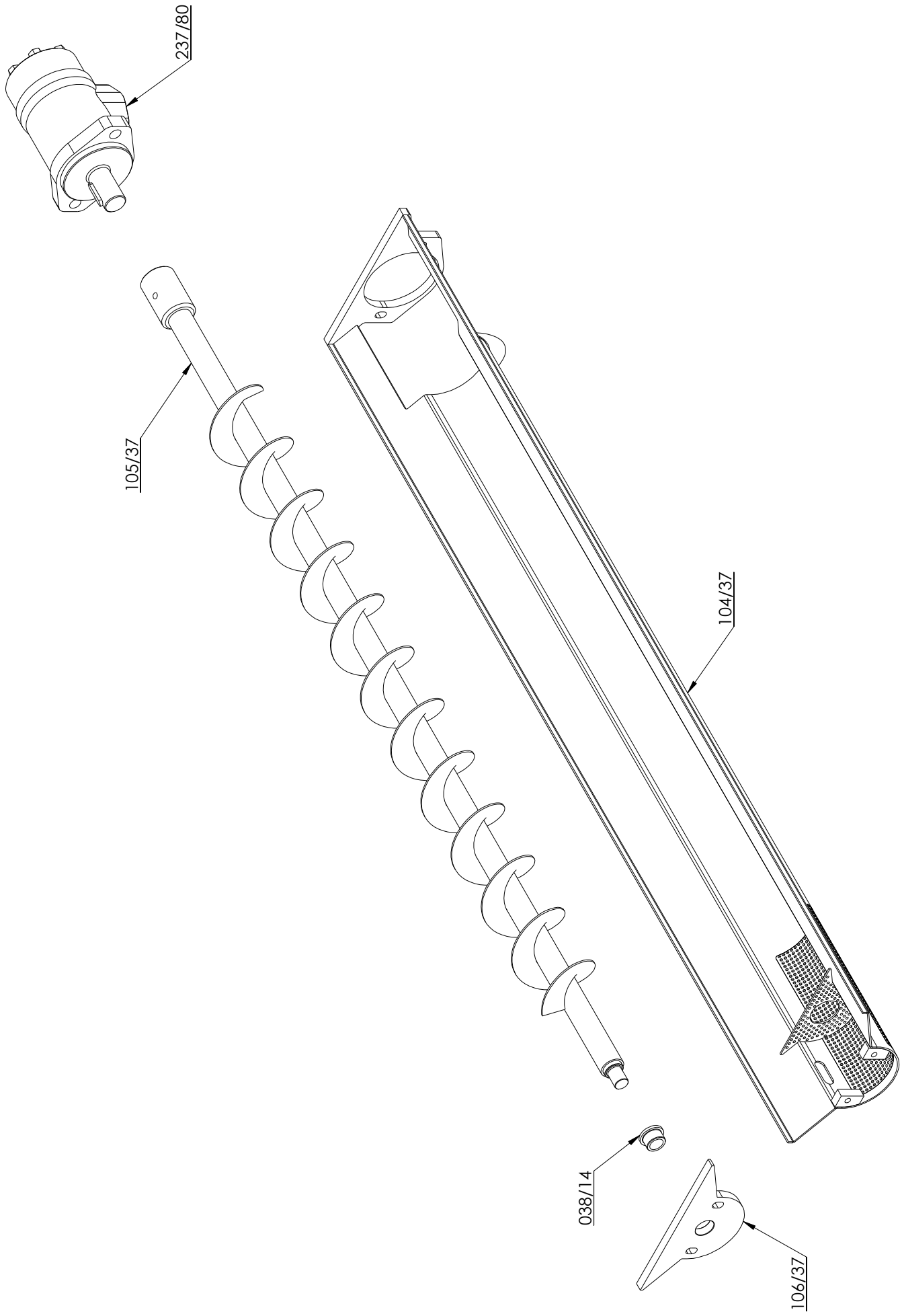
COLONNA POSTERIORE
POSTERIOR COLUMN
COLONNE POSTÉRIEURE
HINTERER STÄNDER
COLUMNAS POSTERIOR



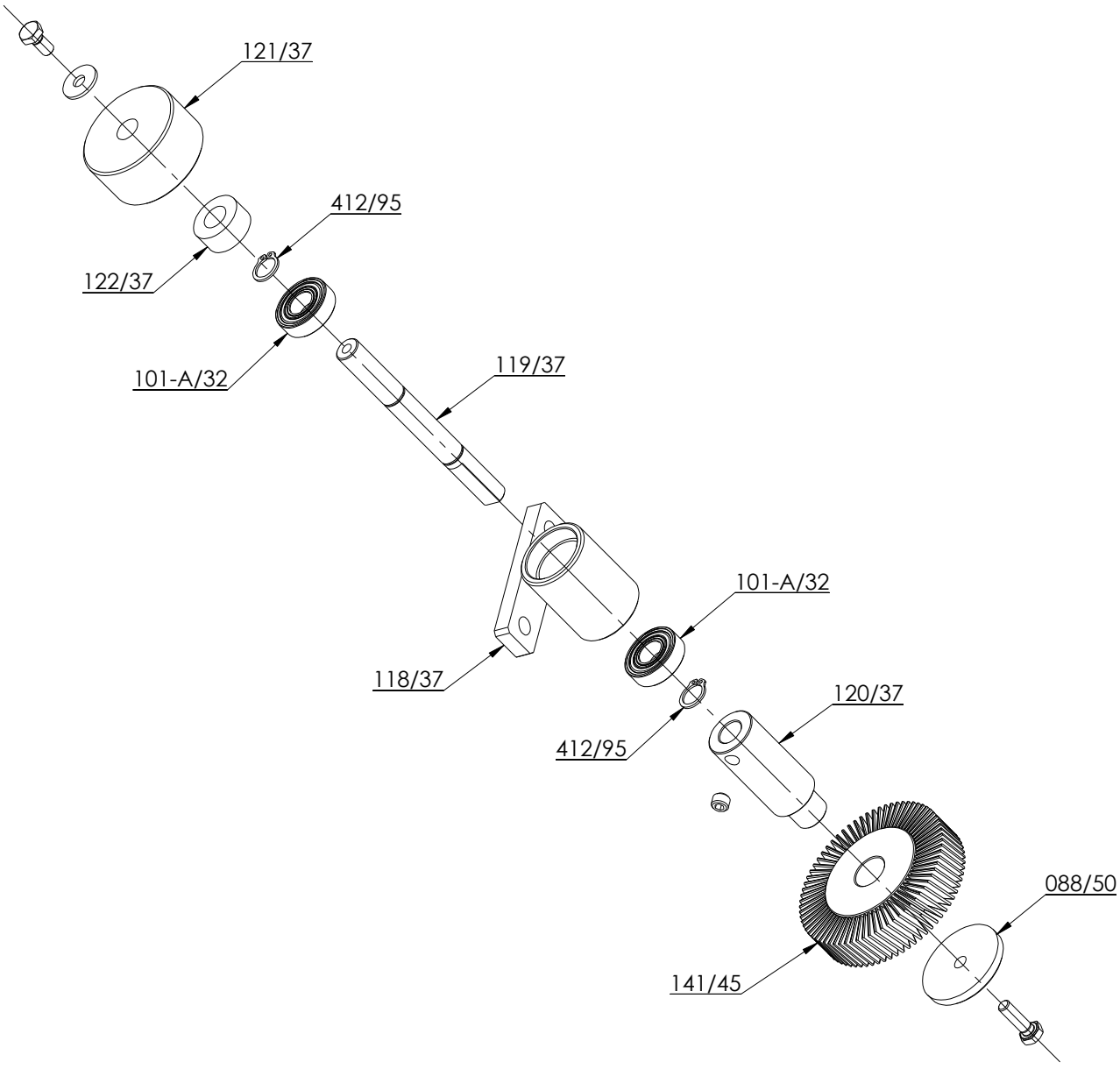
COLONNA ANTERIORE
ANTERIOR COLUMN
COLONNE ANTÉRIEURE
VORDERER STÄNDER
COLUMNAS ANTERIOR



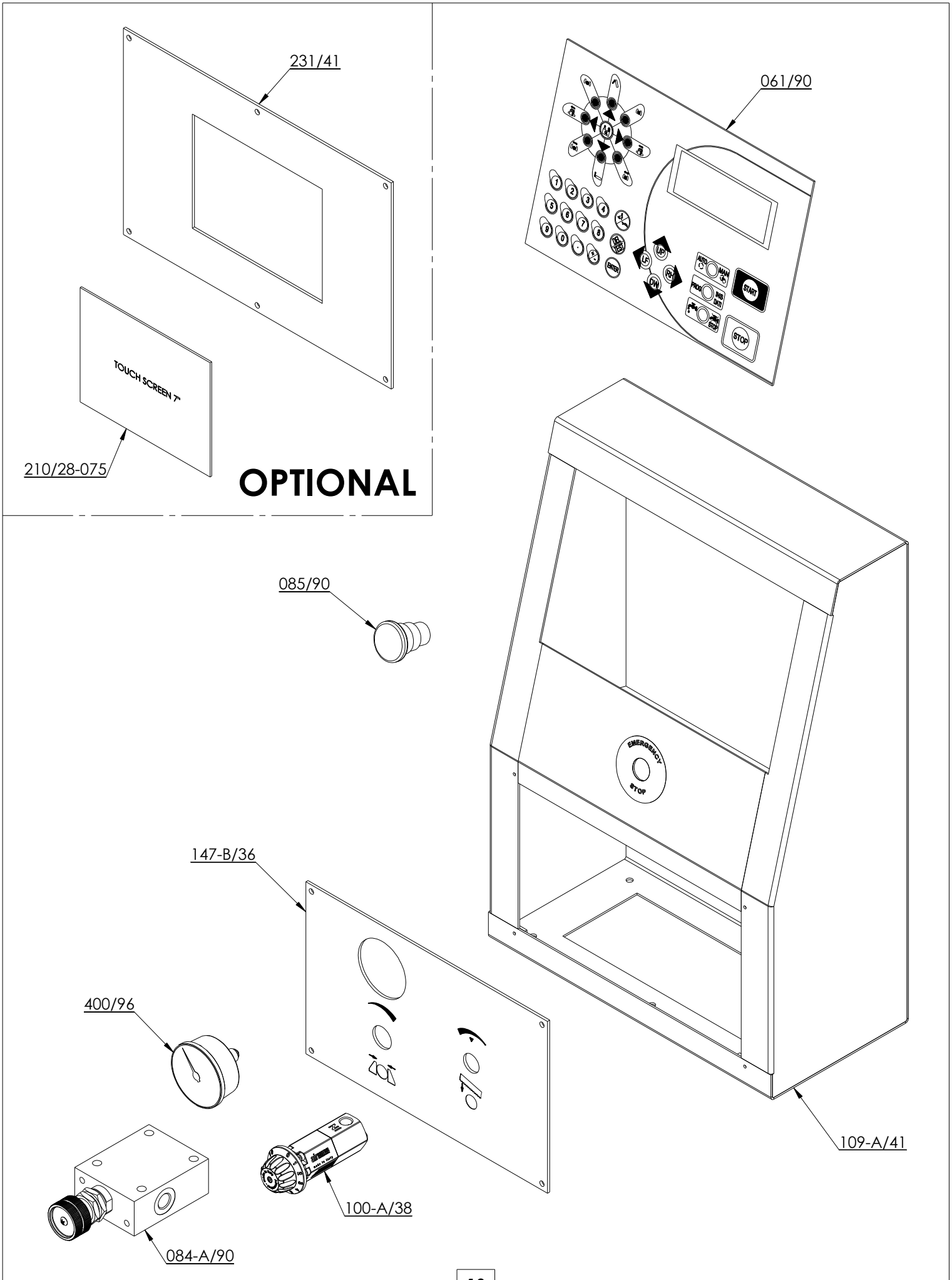
CARRO	CARRIAGE	CHARIOT	WAGEN	CARRO



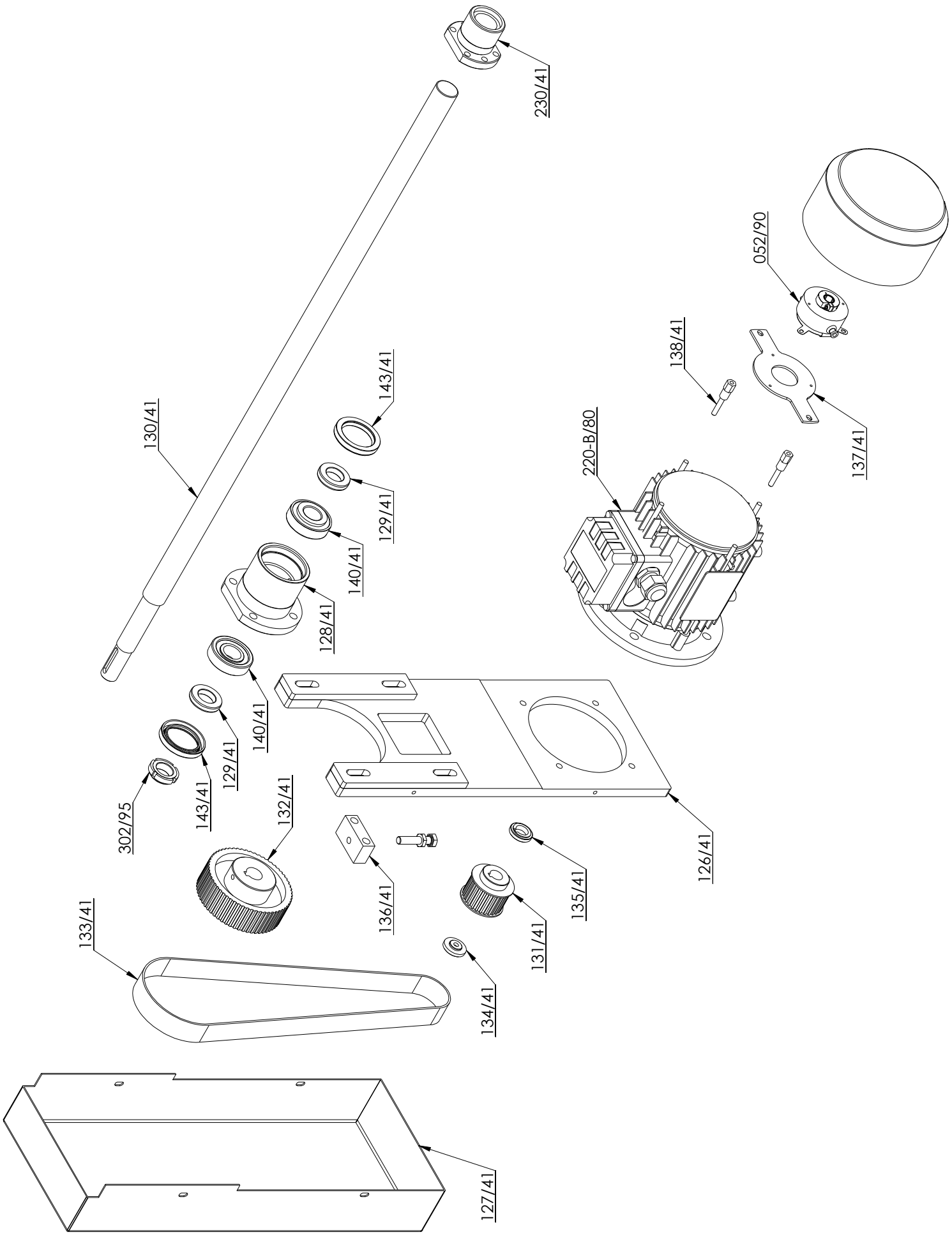
EVACUATORE TRUCIOLI	CHIP CONVEYOR	CONVOYEUR À COPEAUX	SPÄNEFÖRDERER	EXTRACTOR DE VIRUTAS



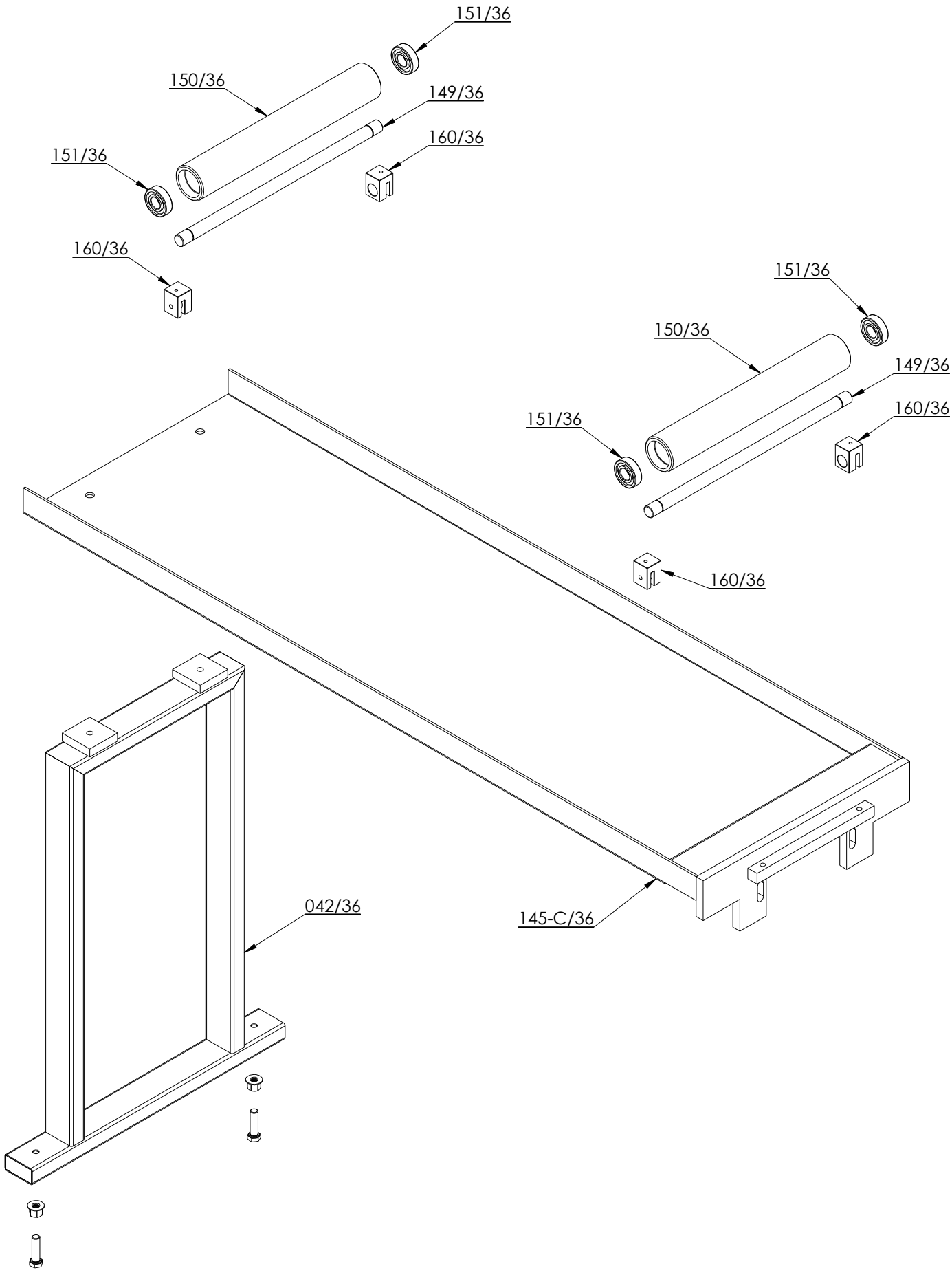
SPAZZOLA PULISCI LAMA	BRUSH CLEANER BLADE	NETTOYAGE LAME DE BROSSE	REINIGÜNGSBURSTE KLINGE	LÀMINA DE LIMPIEZA DEL CEPILLO



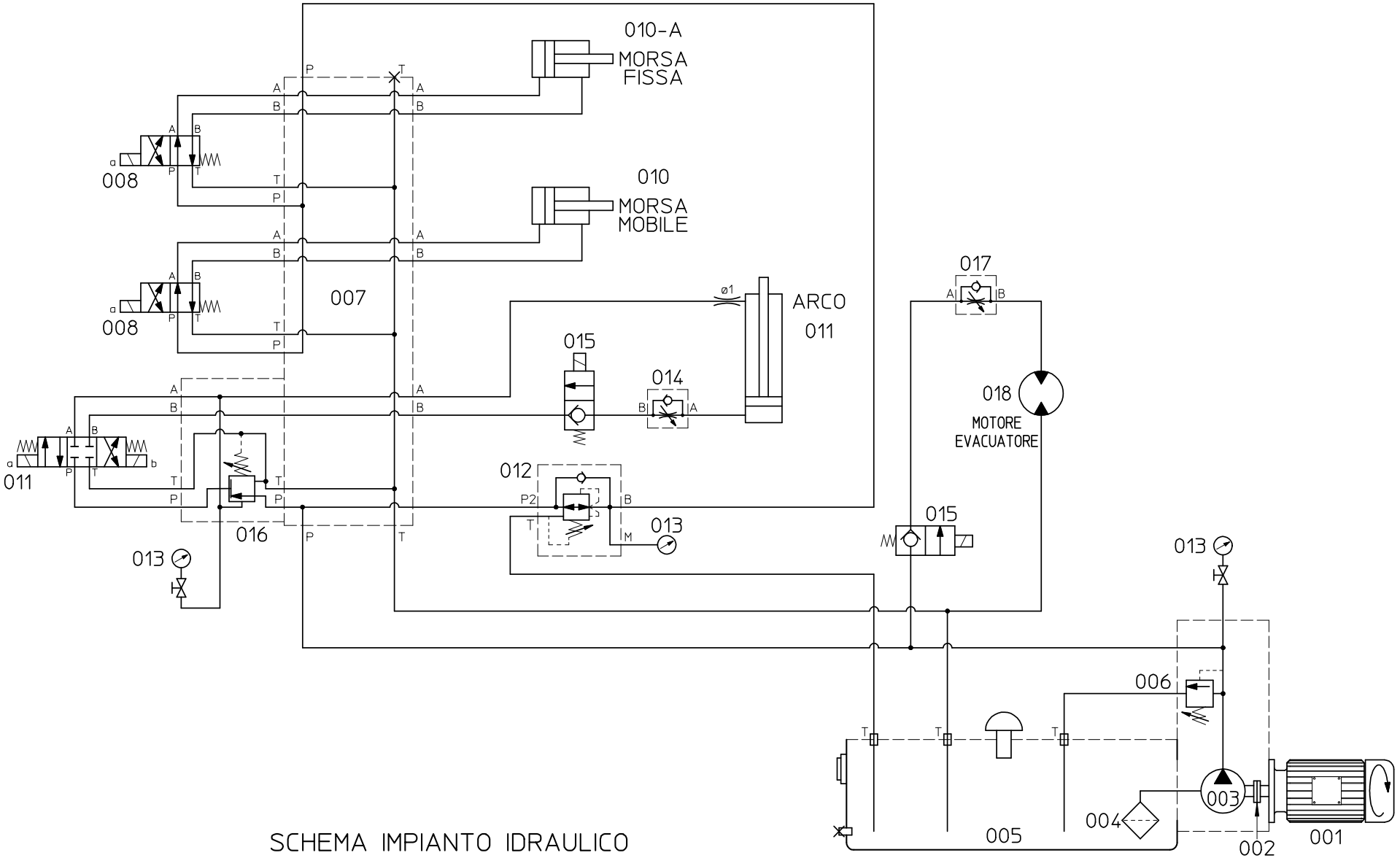
CRUSCOTTO COMANDI	CONTROL PANEL	BOÎTIER DES COMMANDES	STEUERKASTEN	CAJA DE MANDOS



AVANZAMENTO CARRO	CARRIAGE FEED SYSTEM	ALIMENTATION CHARIOT	VORSCHUB FORTSCHRITT ANLAGE	AVANCE DEL CARRO DE ALIMENTACIòN

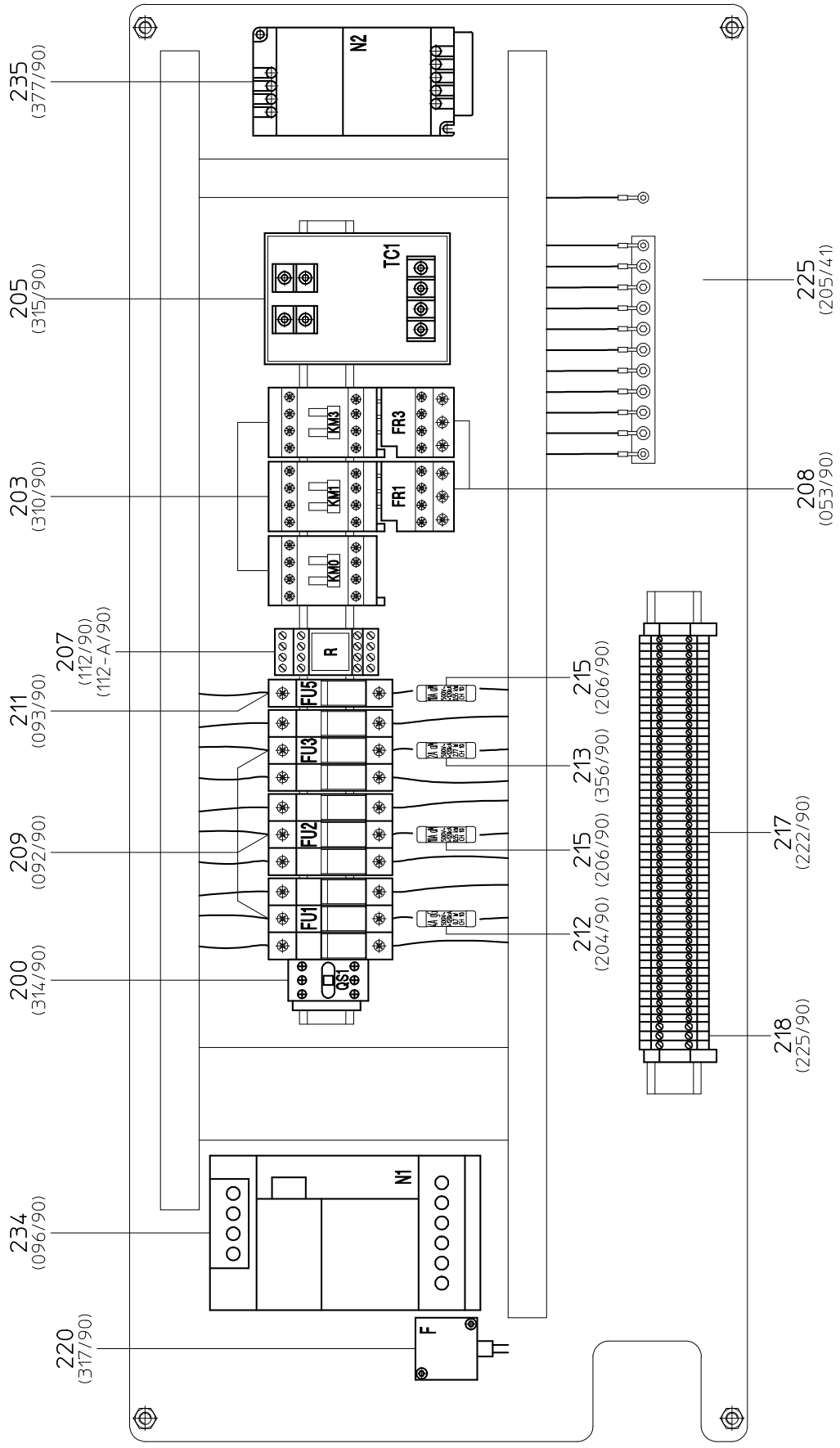


RULLIERA	ROLLER ARM	BRAS PORTE-ROULEAU	ROLLTRAGENARM	BRAZO PORTA-RODILLO



SCHEMA IMPIANTO IDRAULICO

Hydraulic Diagram
Schéma installation Hydraulique
Hydraulikschema
Sistema Hidraulica


235 (377/90)
205 (315/90)
203 (310/90)
207 (112/90) (112-A/90)
211 (093/90)
209 (092/90)
200 (314/90)
234 (096/90)
220 (317/90)
N2
TC1
KM3
FR3
KM1
FR1
KM0
R
FU5
FU3
FU2
FU1
QS1
N1
F
225 (205/41)
208 (053/90)
215
213 (356/90) (206/90)
215 (206/90)
212 (204/90)
217 (222/90)
218 (225/90)

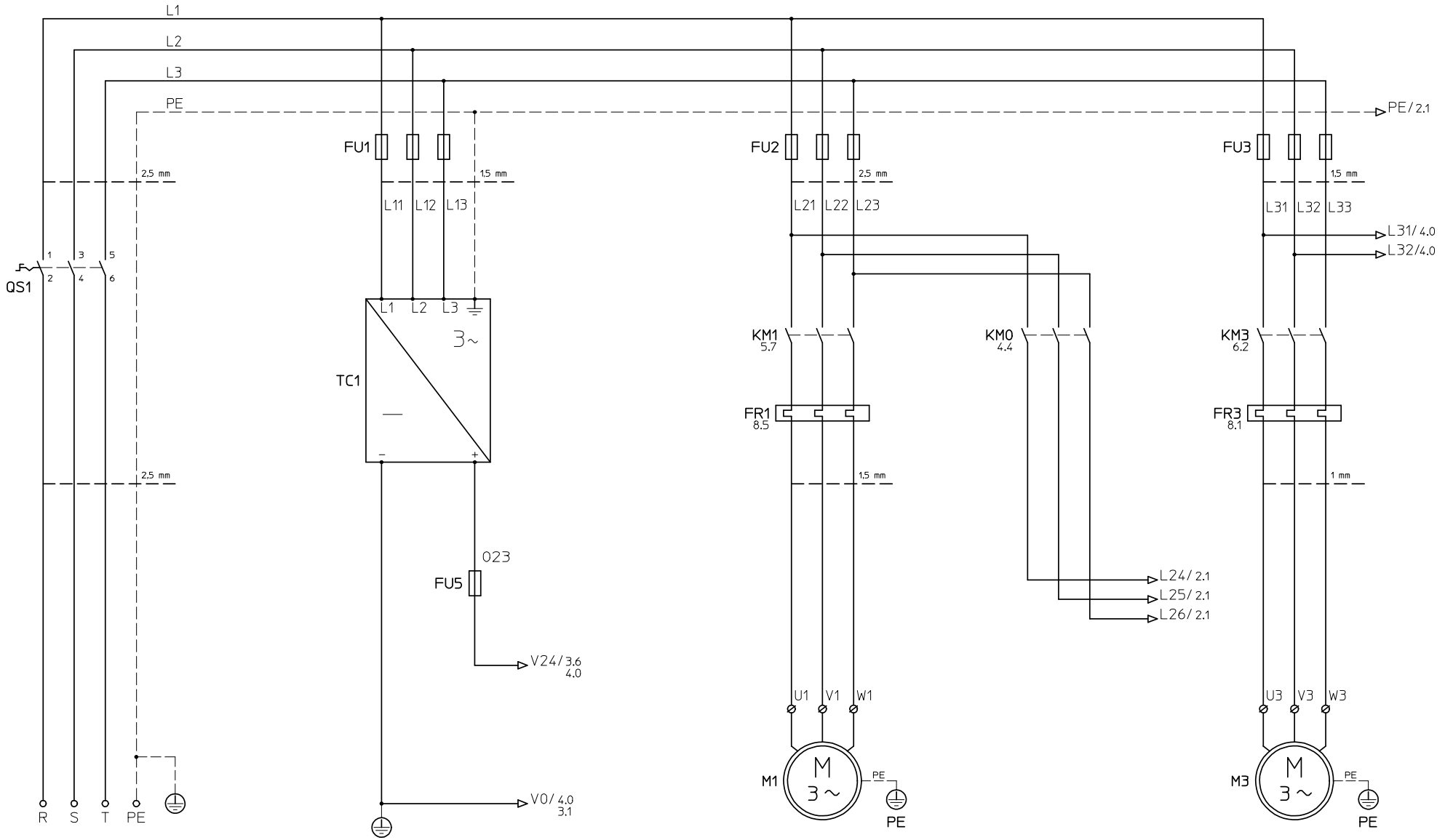
	ITALIANO	ENGLISH	DEUTSCH
FR1	RELE' TERMICO MOTORE POMPA OLIO	THERMAL RELAY OIL PUMP MOTOR	THERMISCHES RELAIS OIL PUMPE MOTOR
FR2	RELE' TERMICO MOTORE LAMA	THERMAL RELAY BLADE MOTOR	THERMISCHES RELAIS SÄGEBLATTMOTOR
FR3	RELE' TERMICO MOTORE REFRIGERANTE	THERMAL RELAY COOLANT MOTOR	THERMISCHES RELAIS ÜHLMITTELMOTOR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

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

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

YV3	ELETTROVALVOLA MORSA MOBILE	MOVABLE VICE SOLENOID VALVE	ELEKTROVENTIL BEWEGLICHER SPANNSTOCK
YV30	ELETTROVALVOLA MORSA MOBILE CHIUDE	CLOSE MOVABLE VICE VALVE	BEW. SPANNSTOCK SCHLIEß ELEKTROVENTIL
YV30P	ELETTROVALVOLA PRESSINO CARRO	CARRIAGE VICE SOLENOID VALVE	ELETRISCHESVENTIL SCHRAUBSTOCK VORSCHUBWAGEN
YV31	ELETTROVALVOLA RUOTA ARCO LENTO	SLOW BOW ROTATION SOLENOID VALVE	LANGSAM SÄGEARMUMDREHUNG ELEKTROVENTIL
YV37	ELETTROVALVOLA RUOTA DX	ROTATION LEFTWARDS SOLENOID VALVE	UMDREHUNG LINKS ELEKTROVENTIL
YV38	ELETTROVALVOLA RUOTA SX	ROTATION RIGHTWARDS SOLENOID VALVE	UMDREHUNG RECHTS ELEKTROVENTIL
YV4	ELETTROVALVOLA SALITA	UP STROKE SOLENOID VALVE	ELEKTROVENTIL ANSTIEG
YV5	ELETTROVALVOLA DISCESA	DOWN STROKE SOLENOID VALVE	ELEKTROVENTIL ABSTIEG
YV50	ELETTROVALVOLA DISCESA LAMA RAPIDA	QUICK LOWERING SOLENOID VALVE	SCHNELL ELEKTROVENTIL ABSTIEG
YV6	ELETTROVALVOLA APERTURA MORSA FISSA	FIXED VICE OPENING SOLENOID VALVE	ELEKTROVENTIL FESTER SPANNSTOCK ÖFFNUNG
YV60	ELETTROVALVOLA CHIUSURA MORSA FISSA	FIXED VICE CLOSING SOLENOID VALVE	ELEKTROVENTIL FESTER SPANNSTOCK SCHLIESSEN
YV60P	ELETTROVALVOLA PRESSINO FISSO	FIXED VICESOLENOID VALVE	ELETRISCHESVENTIL FESTSCHRAUBSTOCK
YV61	ELETTROVALVOLA SPAZZOLA	BRUSH VALVE	BÜRSTE ELEKTROVENTIL
YV62	ELETTROVALVOLA ATTIVAZIONE 2a POMPA OLIO	SECOND OIL PUMP	ZWEITE ÖLPUMPE EIN ELEKTROVENTIL
YV7	ELETTROVALVOLA CARRO AVANTI	CARRIAGE FORWARD SOLENOID VALVE	ELEKTROVENTIL WAGEN VORNE
YV70	ELETTROVALVOLA SPAZZOLA	BRUSH SOLENOID VALVE	BUERSTE MAGNETVENTIL
YV8	ELETTROVALVOLA CARRO INDIETRO	CARRIAGE BACK SOLENOID VALVE	ELEKTROVENTIL WAGEN ZURÜCK
YV9	ELETTROVALVOLA BLOCCO	MANUAL LOCKING SOLENOID VALVE	ELEKTROVENTIL BLOCK
YV90	ELETTROVALVOLA MICROLUBRIFICAZIONE	MICROLUBRICATION SOLENOID	MIKROSPRÜHEINRICHTUNG ELEKTROVENTIL

AUTOMATICA CARRO ELETTRICO (INVERTER DELTA + NEB.)



Rev.	Modificato	C./Appr.	Data	Descrizione

DENOMINAZIONE: SCHEMA ELETTRICO DI POTENZA

Modello: SEGATRICI

Macchina: SPECIAL 391-AV

Data 14/04/2016

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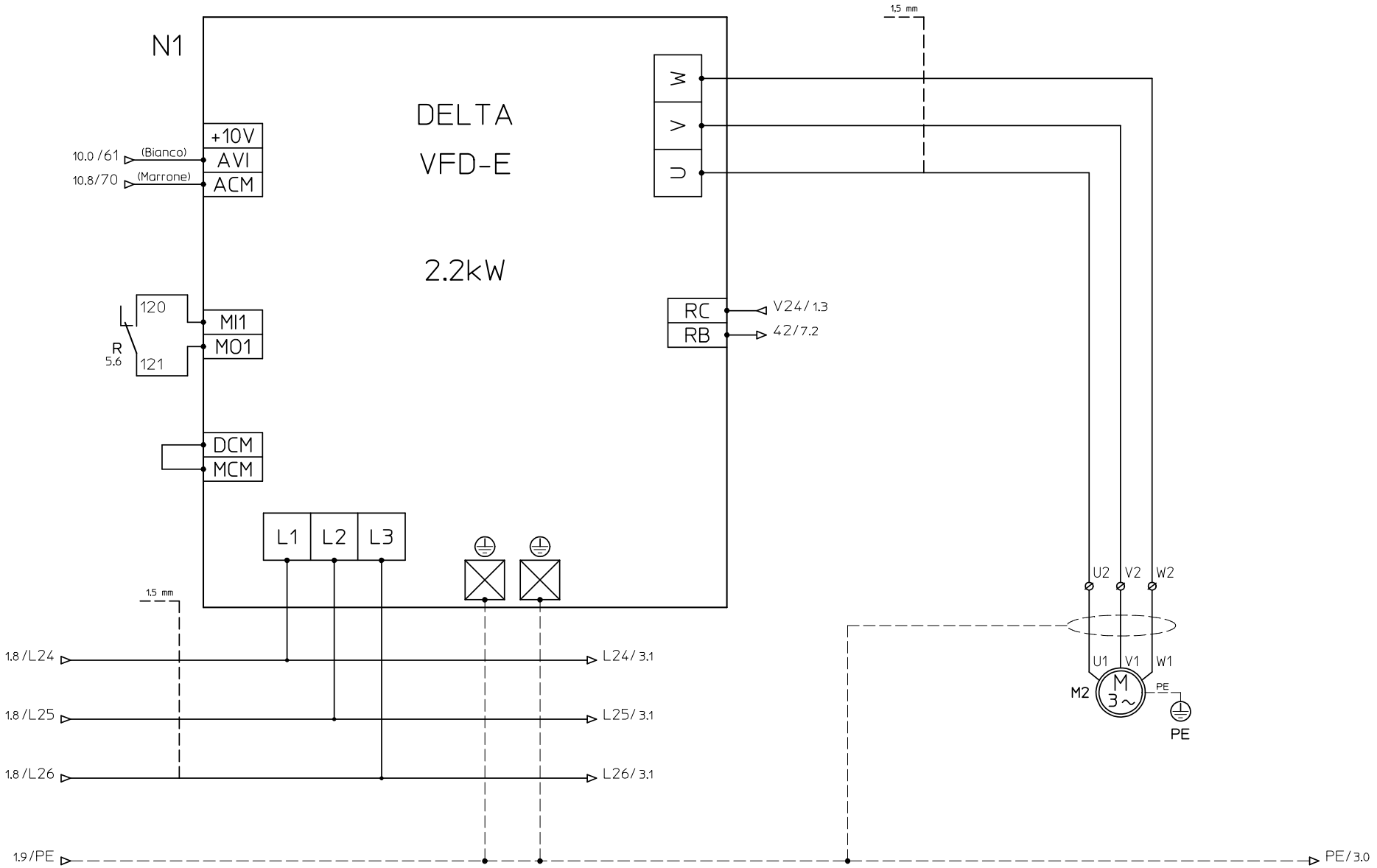
Contr./Appr.

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Rev.	Modificato	C./Appr.	Data	Descrizione

DENOMINAZIONE: SCHEMA ELETTRICO DI POTENZA

Modello: SEGATRICI

Macchina: SPECIAL 391-AV

Data 14/04/2016

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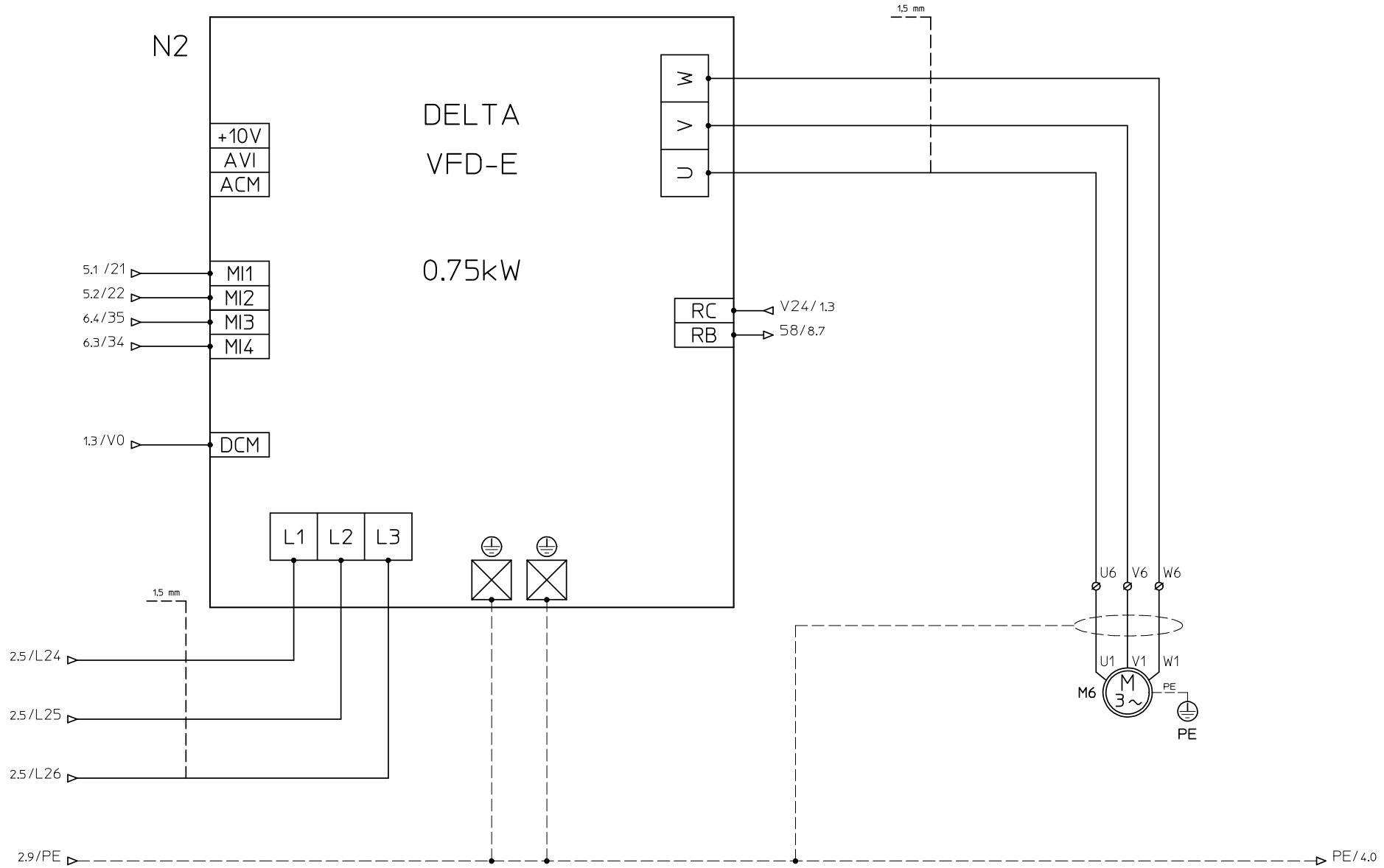
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Rev.	Modificato	C./Appr.	Data	Descrizione

DENOMINAZIONE: SCHEMA ELETTRICO DI POTENZA

Modello: SEGATRICI

Macchina: SPECIAL 391-AV

Data 14/04/2016

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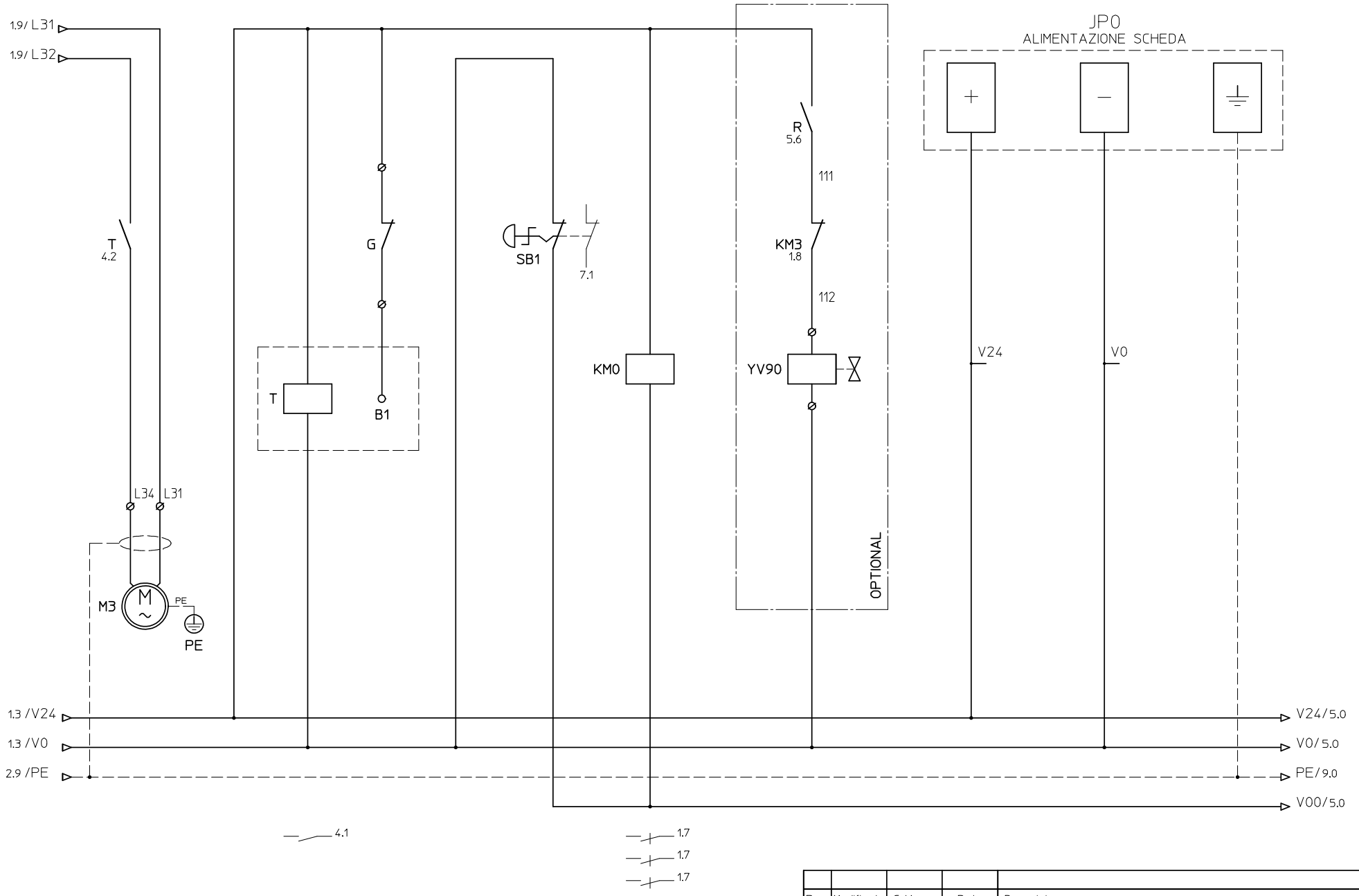
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Rev.	Modificato	C./Appr.	Data	Descrizione

DENOMINAZIONE: **SCHEMA ELETTRICO**

Data **14/04/2016**

Firma *Scremin Andrea*

Contr./Appr.

MACC Schio

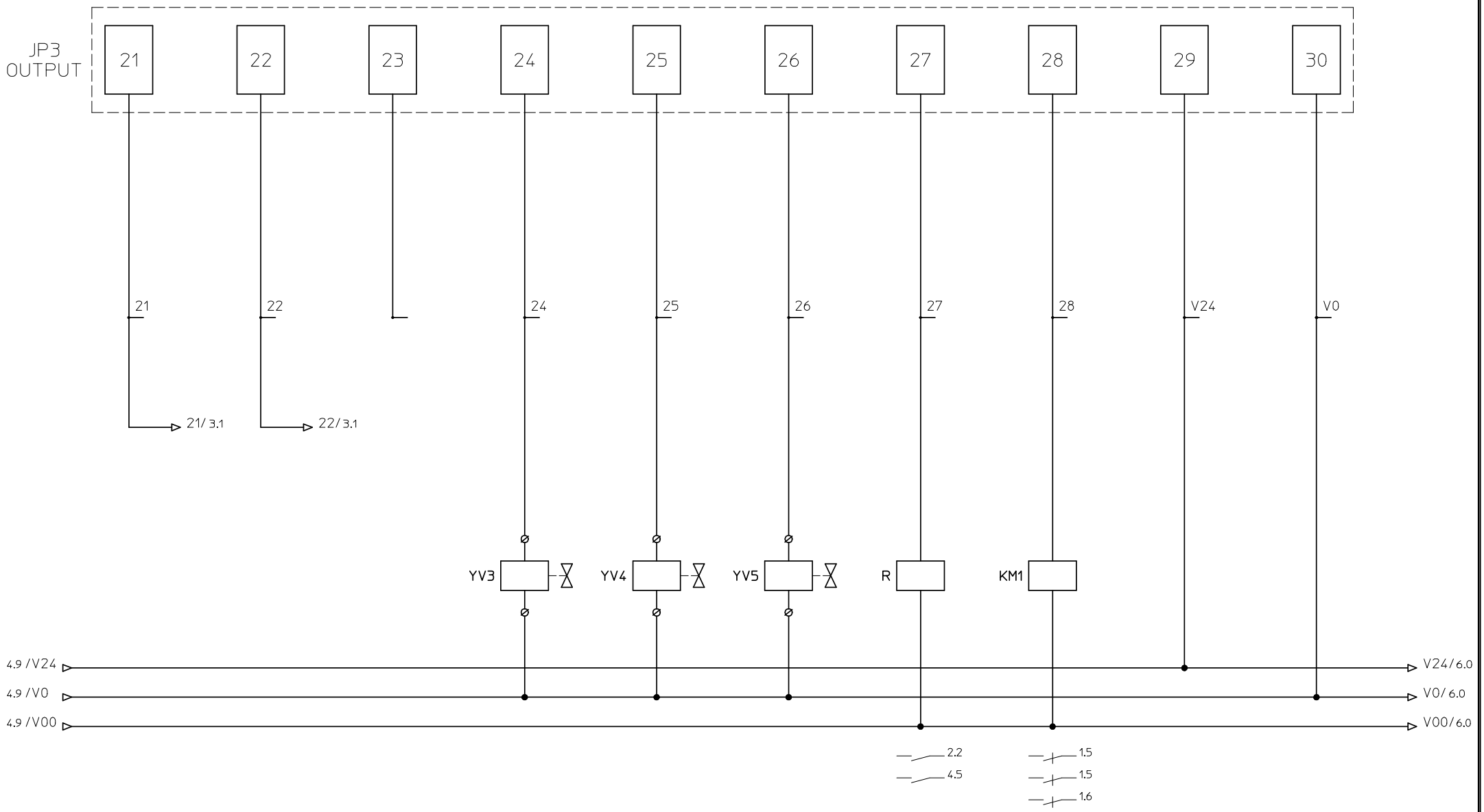
Modello: **SEGATRICI**

Macchina: **SPECIAL 391-AV**

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Rev.	Modificato	C./Appr.	Data	Descrizione

DENOMINAZIONE: **SCHEMA ELETTRICO DI COMANDO OUTPUT**

Modello: **SEGATRICI**

Macchina: **SPECIAL 391-AV**

Data **14/04/2016**

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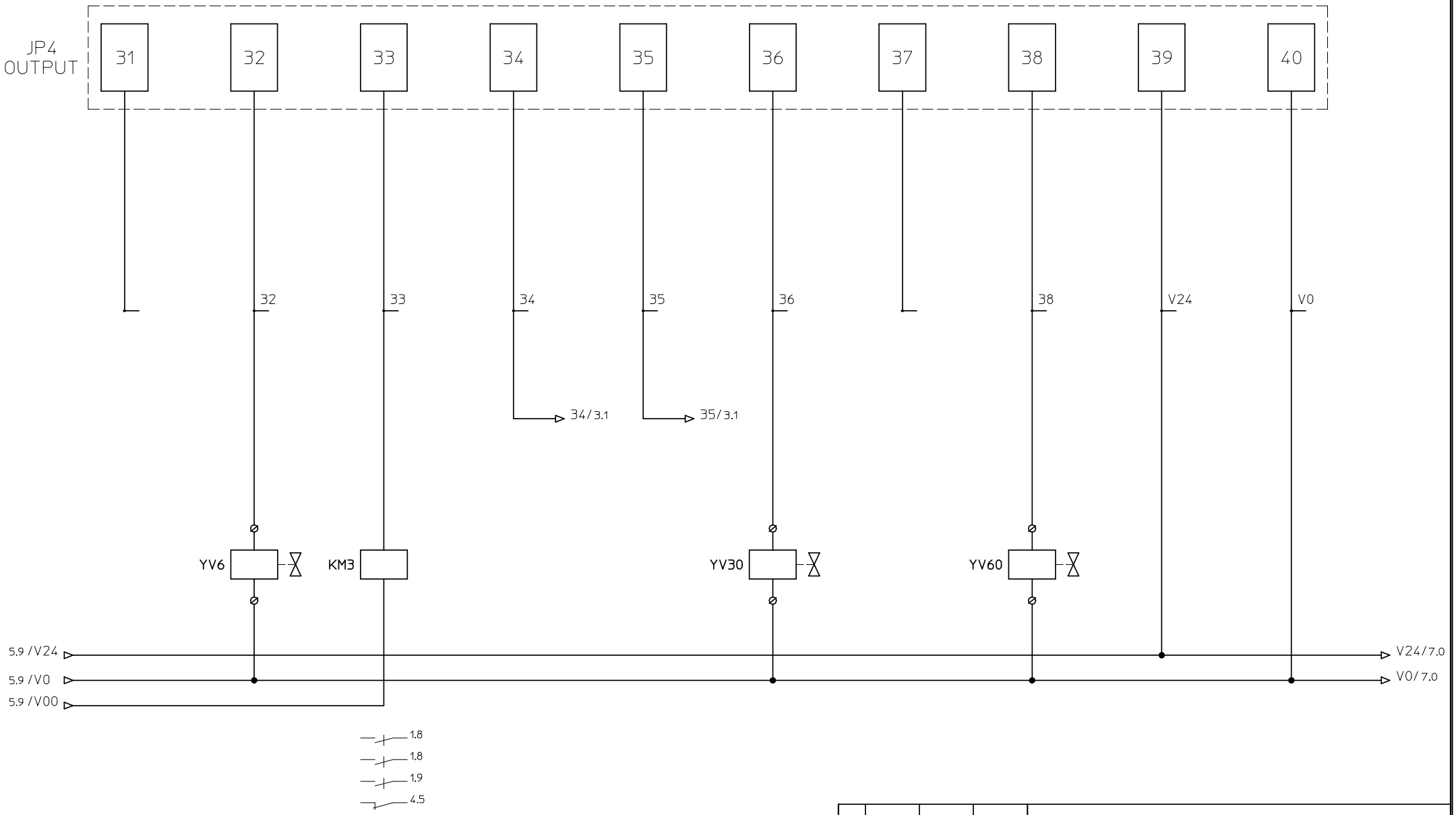
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Rev.	Modificato	C./Appr.	Data	Descrizione

DENOMINAZIONE: **SCHEMA ELETTRICO DI COMANDO OUTPUT**

Modello: **SEGATRICI**

Macchina: **SPECIAL 391-AV**

Data **14/04/2016**

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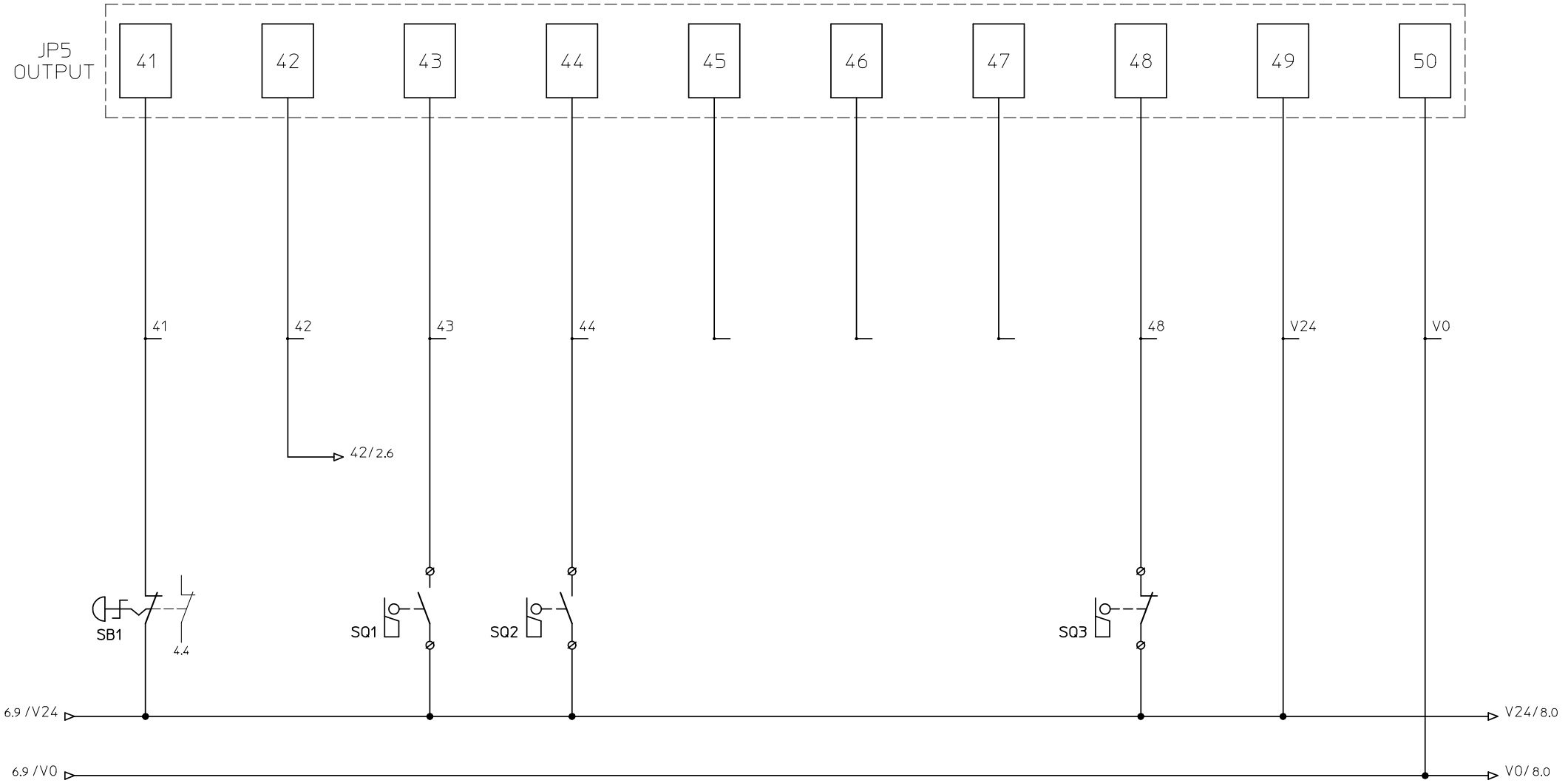
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Rev.	Modificato	C./Appr.	Data	Descrizione

DENOMINAZIONE: **SCHEMA ELETTRICO DI COMANDO INPUT**

Modello: **SEGATRICI**

Macchina: **SPECIAL 391-AV**

Data **14/04/2016**

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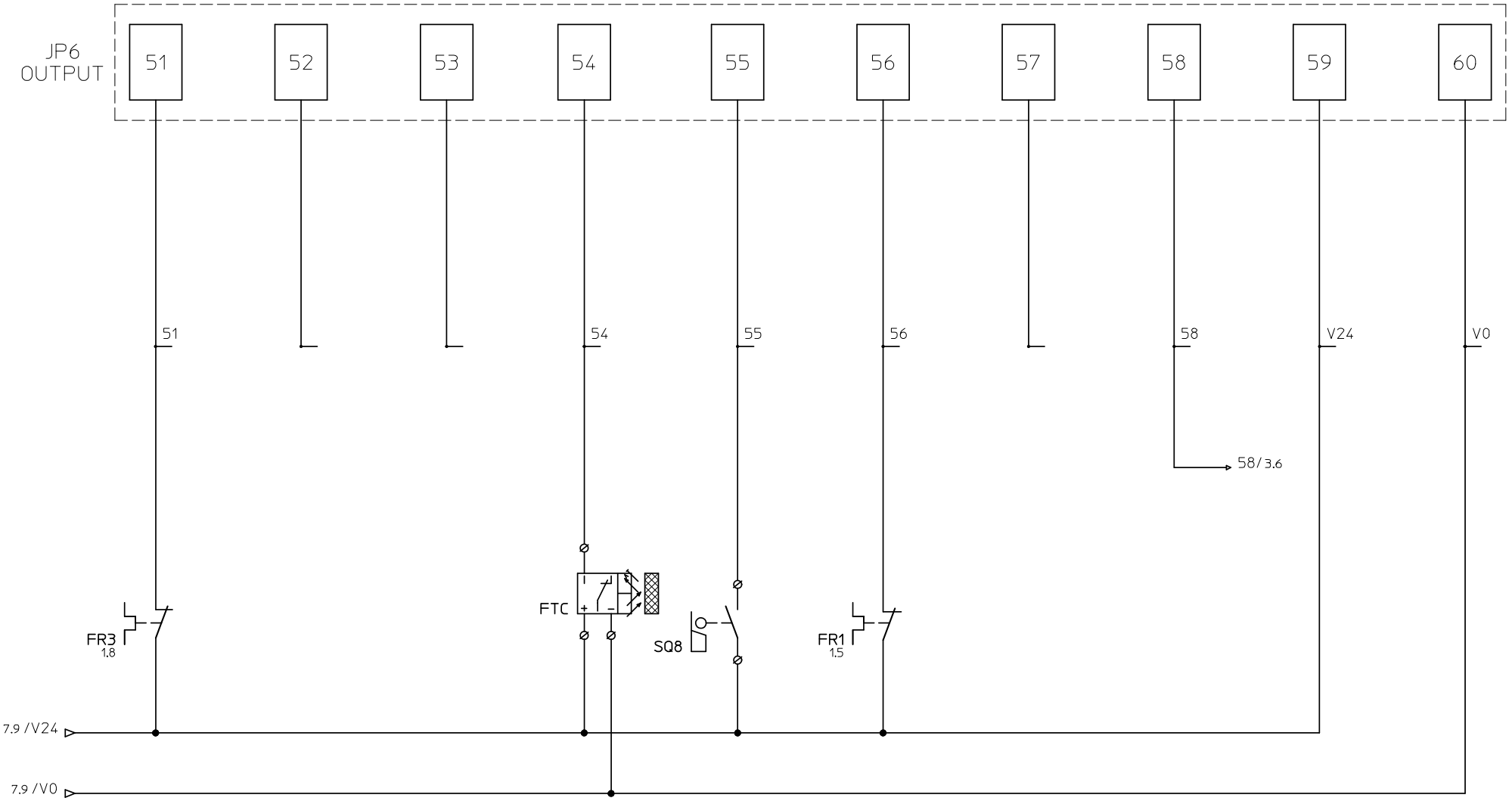
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Rev.	Modificato	C./Appr.	Data	Descrizione

DENOMINAZIONE: **SCHEMA ELETTRICO DI COMANDO INPUT**

Modello: **SEGATRICI**

Macchina: **SPECIAL 391-AV**

Data **14/04/2016**

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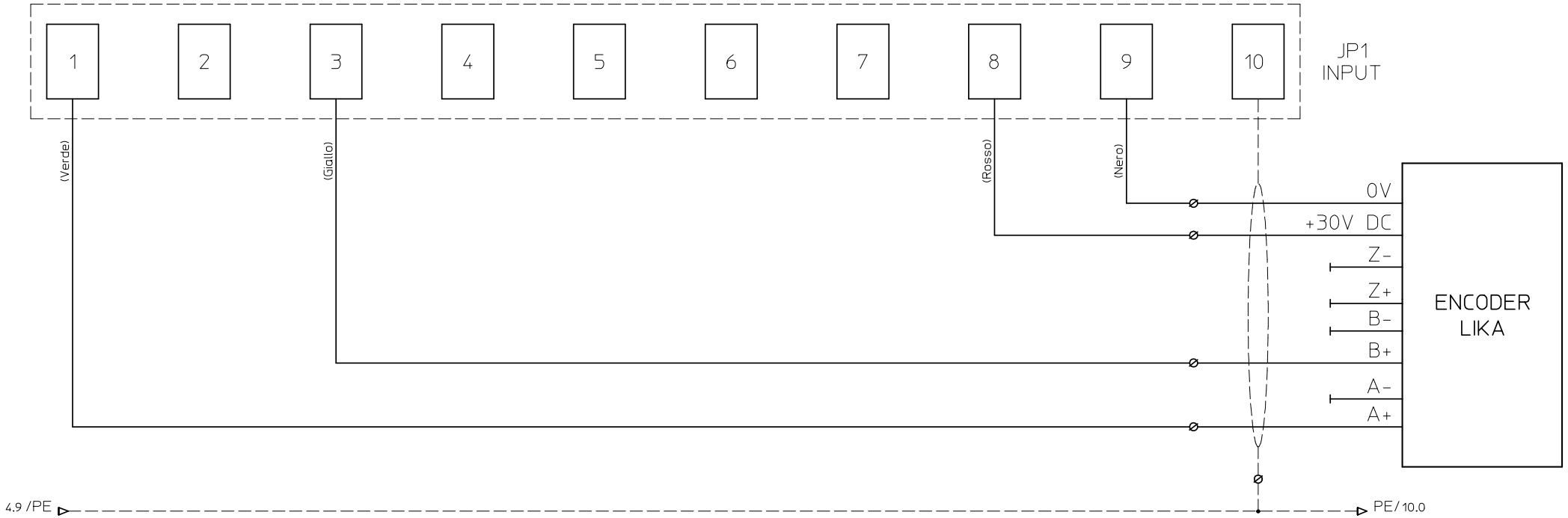
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Rev.	Modificato	C./Appr.	Data	Descrizione

DENOMINAZIONE: **SCHEMA ELETTRICO DI COMANDO INPUT ENCODER**

Modello: **SEGATRICI**

Macchina: **SPECIAL 391-AV**

Data **14/04/2016**

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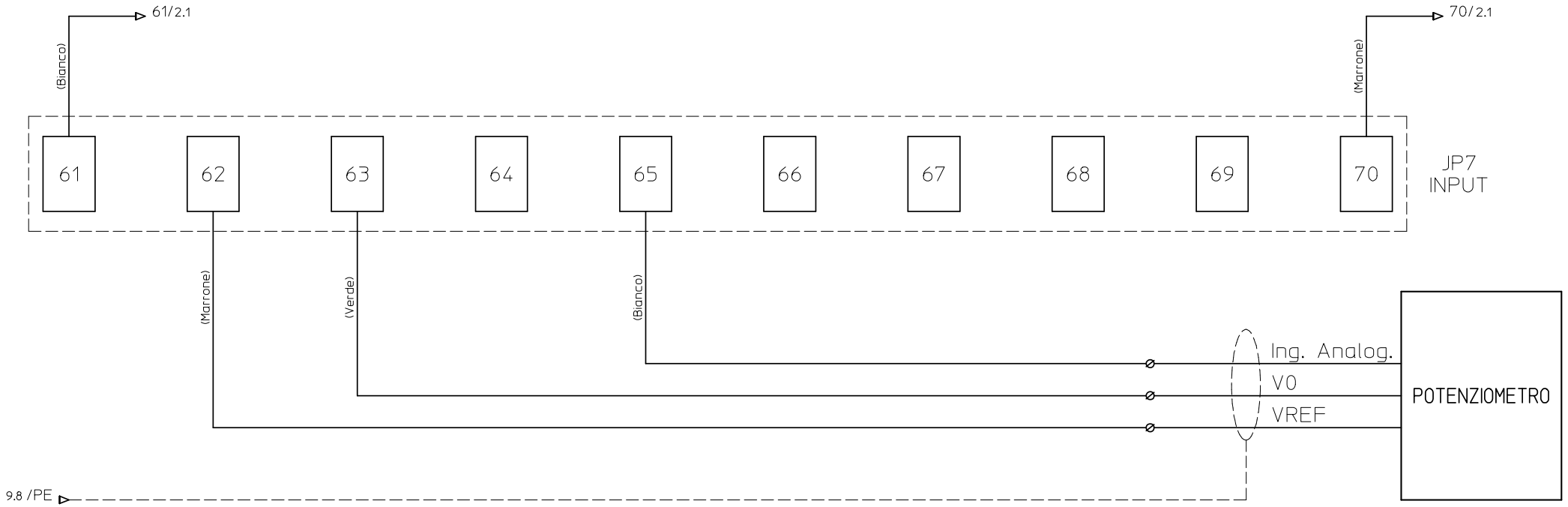
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Rev.	Modificato	C./Appr.	Data	Descrizione

DENOMINAZIONE: **SCHEMA ELETTRICO DI COMANDO ANALOGICHE**

Modello: **SEGATRICI**

Macchina: **SPECIAL 391-AV**

Data **14/04/2016**

Firma *Scremin Andrea*

Contr./Appr.

MACC Schio

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CONTROLLATO IL:	14/04/2016
DA:	
REV.:	0