

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

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

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

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

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

SPECIAL 650 DI

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

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

2023





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

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

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

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 650 DI

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

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

2023

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

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

Macc Costruzioni Meccaniche s.r.l.

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

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

Zanella Gianfranco

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

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

_____ 

Schio,

2023



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

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

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

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

SE PROHÍBE TERMINANTEMENTE UTILIZAR LA MÁQUINA SIN LÍQUIDO DE CORTE.

É SEVERAMENTE PROIBIDO UTILIZAR A MÁQUINA SEM LÍQUIDO DE CORTE.

Категорически запрещено использовать машину без смазочно-охлаждающей жидкости



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

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

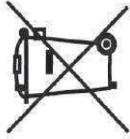
MIKRODOSIERGERÄT: FÜR MASCHINEN MIT MIKRODOSIERGERÄT IST ES STRIKT ERFORDERLICH EINE ATEMMASKE ZUM SCHUTZ DER ATEMWEGE ZU TRAGEN. BITTE DAS GERÄT NUR IN GUT BELÜFTETEN RÄUMEN ANWENDEN.

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

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

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

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



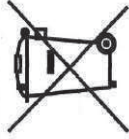
Felhasználható az Európai Unió és egyéb európai országok szelektív hulladékgyűjtési rendszereiben)

Ez a szimbólum a készülékek és az elektronikus készülékek hulladékként való elválogatására szolgál. Kérjük, hogy az elektronikus és elektronikai hulladék gyűjtésére kijelölt gyűjtőhelyen adja le. A felesleges vált termékek helyes kezelésével segít megelőzni a környezeti 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 leghelyi illetékesekhez, a helyi hulladékgyűjtő szolgáltatóhoz vagy ahhoz az üzlethez, ahol a terméket megvásárolta.



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

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



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

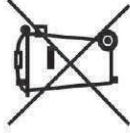
Tento symbol na výrobku alebo obale znamená, že s výrobkom nemôže byť nakladané ako s domovým odpadom. Miesto toho je potrebné ho doručiť do vyhradeného zberného miesta na recykláciu elektrozariadení. Tým, že zaistíte správne zneškodnenie, pomôžete zabrániť potenciálnemu negatívnemu vplyvu na životné prostredie a ľudské zdravie, ktoré by v opačnom prípade hrozil pri nesprávnom nakladaní s týmto výrobkom. Recyklácia materiálov pomáha uchovávať prírodné zdroje. Pre získanie ďalších podrobných informácií o recyklácii tohoto výrobku kontaktujte prosím váš miestny alebo obecný úrad, miestnu službu pre zber domového odpadu alebo predajňu, kde ste výrobok zakúpili.



Eski Elektrikli & Elektronik Ekipmanların Atılması (Avrupa Birliği'nde ve ayrı toplama sistemlerine sahip diğer Avrupa ülkelerinde uygulanır)
Ürün veya ambalajı üzerinde bulunan bu sembol, bu ürünü bir ev atığı olarak muamele görmemesi gerektirir. Ürünü, elektrikli ve elektronik ekipmanların geri dönüşümü için mevzuat olan ayrı toplama noktasına teslim edilmelidir. Bu ürünün doğru şekilde atılması sağlanarak, bu türüne yanlış müdahale edilmemesi konusunda ortaya çıkabilecek ve çevre ile insan sağlığı üzerinde olumsuz etkide bulunabilecek durumların önlenmesine yardımcı olursunuz. Malzemelerin geri dönüşümü, doğal kaynakları korumamıza yardımcı olacaktır. Bu ürünü geri dönüşümüyle ilgili daha fazla bilgi için, lütfen sınırladığınız bölgenin yerel ofisine, evsel atıklar toplama servisimize veya bu ürünü satın aldığınız mağazaya temasa geçin.



Oddaja stare električne in elektronske opreme (veljavno v evropski uniji in ostalih evropskih državah s sistemom zbiranja ločenih odpadkov)
Če se na izdelku ali na njegovi embalaži nahaja ta simbol, pomeni, da z izdelkom ne smete ravnati enako kot z drugimi gospodinjstskimi odpadki. Morate ga oddati na ustrezno zbirno mesto za recikliranje električne in elektronske opreme. S pravilno oddajo tega izdelka boste pomagali preprečiti negativne posledice na okolje in zdravje ljudi, do katerih bi prišlo v primeru neustreznega ravnanja ob odstranitvi tega izdelka. Recikliranje materiala bo pripomoglo k ohranjanju naravnih virov. Podrobnejše informacije o recikliranju tega izdelka lahko dobite pri lokalni mestni upravi, službi odlojanja gospodinjstskih odpadkov ali v trgovini, kjer ste izdelek kupili. Odpadno električno in elektronsko opremo lahko oddate brezplačno tudi distributerju neposredno ob dobavi električne oz. elektronske opreme.



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

Данный знак на устройстве или его упаковке обозначает, что данное устройство нельзя утилизировать вместе с прочими бытовыми отходами. Его следует сдать в соответствующий приемный пункт переработки электрического и электронного оборудования. Неправильная утилизация данного изделия может привести к потенциально негативному влиянию на окружающую среду и здоровье людей, поэтому для предотвращения подобных последствий необходимо выполнить специальные требования по утилизации этого изделия. Переработка данных материалов поможет сохранить природные ресурсы. Для получения более подробной информации о переработке этого изделия обратитесь в местные органы городского управления, службу сбора бытовых отходов или в магазин, где было приобретено изделие.



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

Symboli, joka on merkitty Tuotteeseen tai sen pakkaukseen, osoittaa, että tätä tuotetta ei saa käsitellä talousjätteenä. Tuote on sen sijaan luovutettava sopivaan sähkö- ja elektronikkalaitteiden kierrätyksessä huolellisesti. Tuotteen väärin käsittely voi aiheuttaa negatiivisia vaikutuksia ympäristöön ja ihmisten terveyteen kohdistuvasti haitta-vaikutukset, joihin voi aiheutua muussa tapauksessa tämän tuotteen epäasianmukaista jäte-käsittelyä. Materiaalien kierrätys säästää luonnonvaroja. Tarkempia tietoja tämän tuotteen kierrättämisestä saa paikallisesta kunnantalonistosta.



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 genbragt. Når du bortskaffer produktet korrekt, hjælper du med at forhindre de mulige negative påvirkninger af miljøet eller sundheden, der kan opstå, hvis produktet bortskaffes på upassende vis. Genbrug af materialer er med at bevare naturens ressourcer. Yderligere oplysninger om genbrug af produktet fås på kommunen, på genbrugscentralen eller i den butik, hvor du købte produktet.



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

Este símbolo, colocado no produto ou na sua embalagem, indica que este não deve ser tratado como resíduo urbano indiferenciado. Deve 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 contribui para a conservação dos recursos naturais. Para obter informação mais detalhada sobre a reciclagem deste produto, por favor contacte o município onde reside, os serviços de recolha de resíduos da sua área ou a loja onde adquiriu o produto.



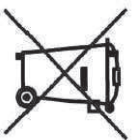
Αποκοπή Παλαιού Ηλεκτρικού & Ηλεκτρονικού Εξοπλισμού(ισχύει στην Ευρωπαϊκή Ένωση και άλλες Ευρωπαϊκές χώρες με ξεχωριστά συστήματα περισυλλογής)

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

English

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

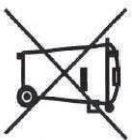
This symbol on the product or on its packaging indicates that this product shall not be treated as household waste. Instead it shall be handed over to the applicable collection point for the recycling of electrical and electronic equipment. By ensuring this product is disposed of correctly, you will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



Français

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

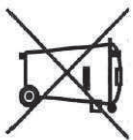
Ce symbole, apposé sur le produit ou sur son emballage, indique que ce produit ne doit pas être traité avec les déchets ménagers. Il doit être remis à un point de collecte approprié pour le recyclage des équipements électriques et électroniques. En s'assurant que ce produit est bien mis au rebut de manière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



Deutsch

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

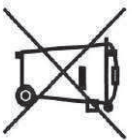
Das Symbol auf dem Produkt oder seiner Verpackung weist darauf hin, dass dieses Produkt nicht als normaler Haushaltsabfall zu behandeln ist, sondern an einer Annahmestelle für das Recycling von elektrischen und elektronischen Geräten abgegeben werden muss. Durch Ihren Beitrag zum korrekten Entsorgung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



Español

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

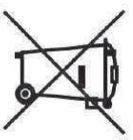
Este símbolo en su equipo o su embalaje indica que el presente producto no puede ser tratado como residuos domésticos normales, sino que deben entregarse en el correspondiente punto de recogida de equipos eléctricos y electrónicos. Asegurándose de que este producto es desechado correctamente, Ud. está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



Nederlands

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

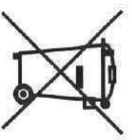
Het symbool op het product of op de verpakking wijst erop dat dit product niet als huishoudafval mag worden behandeld. Het moet echter naar een plaats worden gebracht waar elektrische en elektronische apparatuur wordt gerecycled. Als u ervoor zorgt dat dit product op de correcte manier wordt verwerkt,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



Svenska

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

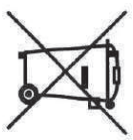
Symboolen på produkten eller emballaget anger att produkten inte får hanteras som hushållsavfall. Den skall i stället lämnas in på uppsamlingsplats för återvinning av el- och elektronikkomponenter. Genom att säkerställa att produkten hanteras på rätt sätt bidrar du till att förebygga eventuellt negativa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



Italiano

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

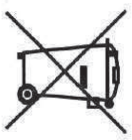
Questo simbolo sul prodotto o sulla confezione indica che il prodotto non deve essere considerato come un normale rifiuto domestico, ma deve invece essere consegnato ad un punto di raccolta appropriato per il riciclo di apparecchi elettrici ed elettronici. Assicurandovi che questo prodotto sia smaltito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



Język polski

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

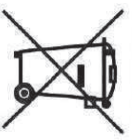
Taki symbol na produkcie lub jego opakowaniu oznacza, że produkt nie może być traktowany jako odpad komunalny, lecz powinno się go dostarczyć do odpowiedniego punktu zbiórki sprzętu elektrycznego i elektronicznego, w celu recyklingu. Poprzez upewnienie się, że dyspozycja dotychczas produktu jest poprawna,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



Norsk

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

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



INSTRUCTION MANUAL SPECIAL 650 DI

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

The "Operating instructions" are an integral part of the machine and should be consulted before , during and after the start up of the machine and whenever else required . The content of these instructions should always be carefully observed . The observance of the above is the only way to achieve the two fundamental aims of this manual :

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

The index of the chapters and the index of the drawings , diagrams and tables is contained in chapter 1 and can be used to help the location of specific information .

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

INFORMATION ABOUT MAINTENANCE ASSISTANCE

GUARANTEE

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

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

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

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Safety processes and prevention from work accidents

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 - Fixing of material
 - Instructions towards correct cut
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ENCLOSURES

| ENCL. TYPE | DESCRIPTION | ENCL. No. |
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INTRODUCTION

Bandsaw machine for metal SPECIAL 650 DI +60° -60° is semi-automatic machine for cutting of all metal materials . It is especially used for material cutting in workshops where it is necessary to cut elements in the angles +60°÷ -60° in semi-automatic regime .

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

SPECIAL 650 DI is used to cut ferrous materials , steel alloys , cast iron , copper , aluminium alloys .

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

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

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

MACHINE INSTALLATION AND PUTTING IT INTO OPERATION

- 1.) The machine is installed on horizontal and fixed support plate which will have loading capacity for machine , special accessories and maximum weight of cut material .
- 2.) Required space for machine installation – see Draw.4 , Encl.2 .
- 3.) Pay attention to minimum distance – min. 1 m from walls respectively from other machines .
- 4.) The operating temperature of the room , in which the machine will work , can be in the range of 0°÷40°C .
- 5.) Pedestal and roller conveyors (if required) must be in horizontal position in order to keep rectangularity of cut . At setting up , the water level must be placed on the putting area of vice .
- 6.) The electric connection of the machine must be performed by qualified personnel , in a dry environment .
- 7.) Before putting machine into operation , it is necessary to fit all the required accessories .
- 8.) Plates used for conducting coolant liquid away , which are removed during transportation , must be assembled to machine pedestal using the special screws .
- 9.) Before first switch on of the machine
 - a. Check for correct blade movement (an arrow on the motor pulley indicates the rotation direction) .
 - b. Tension the band by rotating the handwheel 102 to the end of stroke (Draw.10 Encl.5) .
Always remember to loosen the tension on the belt when work is terminated using the handwheel to prevent it from being stretched and weakened .
 - c. Check for the amount and the supply of the coolant .
 - d. Check for correct placing and fixing of the material which will be cut
 - e. Check for the distance between the blade and the material to be cut (the blade mustn't be in contact with the material to be cut at machine switch on) .
 - f.

Use cautions :

It is necessary to keep following instruction during machine operation :

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

SAFETY PROCESSES AND PREVENTION FROM WORK ACCIDENTS

GENERAL REGULATIONS

Before installation , to be informed about safety measures .

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

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

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

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

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

The machine produced by us is in compliance with :

2006/42/EEC Machinery Directive .

The following Standards apply :

| | | |
|-----------------|------|--|
| -EN ISO 12100 | 2010 | Safety of machinery . Basic concepts , general principles for design , basic methodology . |
| -EN 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 hydraulic and pneumatic transmissions . |
| -EN 1037 | 2008 | Safety of machinery . Prevention of unexpected start-up . |
| -EN 14119 | 2013 | Interlocking devices associated with guards — Principles for design and selection . |
| -EN 60204-1 | 2018 | Safety of machinery . Electrical equipment of machines . General requirements . |
| -EN 13857 | 2008 | Safety distances to prevent danger zones being reached by the upper limbs . |

2014/30/UE Directive on electromagnetic compatibility .

The following Standards apply :

| | | |
|----------------|------|--|
| -EN 55014-1 | 2019 | Electromagnetic compatibility - Requirements for household appliances , electric tools and similar apparatus . |
| -EN 61000-3-2 | 2018 | Electromagnetic compatibility – Limits for harmonic current emissions . |
| -EN 61000-3-11 | 2017 | Electromagnetic compatibility (EMC) – Limitation of voltage changes , voltage fluctuations and flicker in public low-voltage supply systems . |
| -EN 55032 | 2015 | Electromagnetic compatibility of multimedia equipment - Emission requirements |
| -EN 61000-4-2 | 2008 | Electromagnetic compatibility (EMC) Part 4 : Testing and measurement techniques Section 2 : Electrostatic discharge immunity test . EMC Base Publication . |
| -EN 61000-4-4 | 2012 | Electromagnetic compatibility (EMC) Part 4-4 : Testing and measurement techniques - Electrical fast transient/burst immunity test . |
| -EN61000-4-6 | 2013 | Electromagnetic compatibility (EMC) Part 4 : Testing and measurement techniques . Section 6 : Immunity to conducted disturbances , induced by radio-frequency fields . |



2014/35/UE Low Voltage Directive .

Directive 2003/11/EC Restrictions on the marketing and use of certain dangerous substances and preparations (pentabromodiphenyl ether , octabromodiphenyl ether) .

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

A. TECHNICAL DESCRIPTION AND OPERATION

1.) SPECIAL 650 DI BASIC TECHNICAL PARAMETERS

| | Ø |  |  |
|-----------|-----|---|---|
| 90° | 460 | 450 | 450x620 |
| 45° right | 450 | 430 | 400x450 |
| 45° left | 450 | 410 | 340x450 |
| 60° right | 240 | 300 | 220x320 |
| 60° left | 300 | 300 | 270x420 |

| Three phase power supply | |
|---------------------------------------|----------------------|
| Motor power | 2.2 kW |
| Motor revolutions | 1450 rpm |
| Cutting speed | 22 - 73m/1' |
| Control unit motor | 0.55 kW |
| Electric pump | 0.09 kW |
| Fly wheel dimensions | ø500 mm |
| Blade size (length x width x thick) | 5270 x 34 x 1.1 mm |
| Cutting thickness | 1,5 mm |
| Cutting angle | 60° dx – 60° sx |
| Material clamping vice max opening | 620 mm |
| Jaws height | 250 mm |
| Jaws length | 235 mm |
| Bed height | 760 mm~ |
| Coolant tank capacity | 50 litri |
| Machine weight | ~12260 N (1250 kg) |

Special 650 with inverter

Blade speed :

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

- Machine complete with inverter .
- Machine with digital device displaying degrees .

2.) CUTTING OPERATION

Before starting cutting operations , if the inclination of the cut is not as desired , correct it or change it by loosening the special lever 118 and rotating the arc until the desired position is reached . Read the number of degrees corresponding to the position on the display located on the control panel .

When the desired number of degrees has been reached , remember to fix the lever 118 in position .

Turn on the machine using the main switch 228 and rotate the speed regulator 203 onto the required speed . The oil pump start-up is obtained by the RESET A key , press again the RESET key to bring the saw frame to the high position .

If the machine does not perform any movement whichever button is pressed , the two phases of the line cable must be inverted , this inverts the direction the oil pump motor rotates in .

This instrument enables the top and bottom cutting limits to be programmed directly by means of the control keyboard .

To memorize the top position limit , cutting starting point , bring the blade close to the material to be cut and position it at about 5mm from it using keys C and F . To memorize the position , press key D (Start) . Each time the key D (Start) is pressed , automatically the cutting start point is memorized . To memorise the bottom cutting limit , bring the blade to the desired low point using the key F and hold the button E (Memory) pressed until it not flashes , indicating memorization is completed .

To make a cut after storing the high and low limit desired , start the cutting cycle by pressing the Start D .

Before performing this last operation , make sure the descent regulator 68 is closed , in order to prevent the blade from descending too quickly onto the piece to be cut .

Position the part on a work surface . Press the button Start "D" to start a cut cycle . The blade starts to rotate , closes the vice and the bow starts to go down . By means of the adjuster 68 , it is possible change the descent speed the arc .

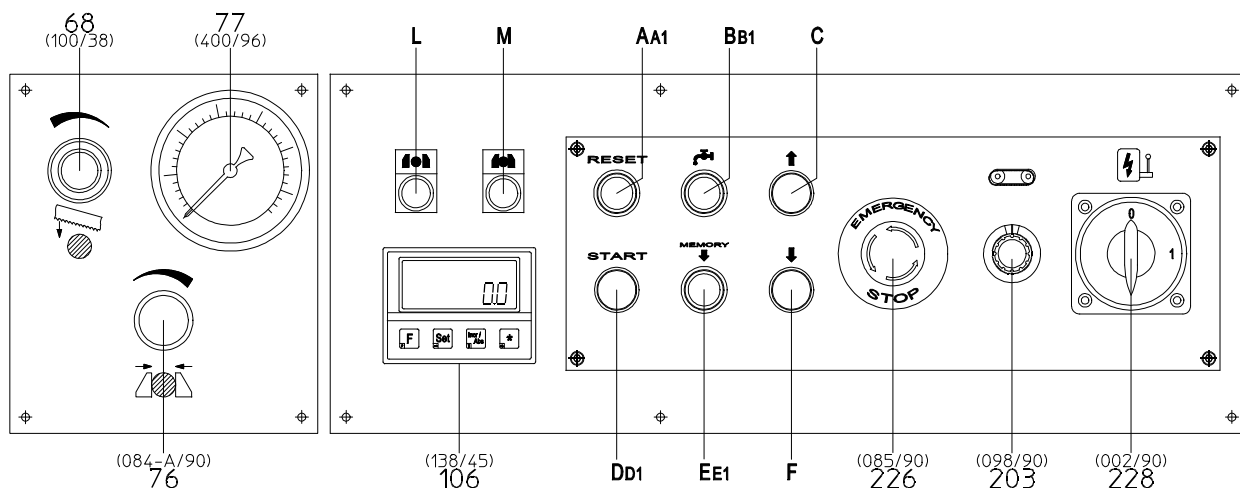
Once hitting the low limit initially set , the saw frame goes back to the cutting start position and the blade stops

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

For the use of the coolant, button B must be switched on .

If the machine is not used for more than 3 minutes. , the oil pump switches off automatically; to turn it on again, press the Reset A button .

ON MACHINE WITH HYDRAULIC PRESSING ONLY RIGHT ROTATION FOR ANGULAR CUTS



- A. RESET button
- B. motorized cooling pump ON-OFF button
- C. bow up button
- D. START button
- E. bow low limit memorization button
- F. bow down button
- L. command button open vice
- M. command button closure vice
- A1. RESET button led
- B1. motorized cooling pump button led
- D1. START button led
- E1. bow bottom limit setting key led
- 68. bow down speed regulator
- 76. vice closure pressure regulator
- 77. vice closure pressure gauge
- 106. cutting angle viewer
- 203. potentiometer belt speed variation
- 226. emergency button
- 228. ON-OFF main switch

3.) BLADES

BLADE TENSION

Tension the band by rotating the handwheel 102 to the end of stroke (Draw.10 Encl.5) . Always remember to loosen the tension on the band when work is terminated using the handwheel to prevent it from being stretched and weakened .

REQUIRED BLADE TENSION : is set up by the manufacturer .

BLADE GUIDE

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

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

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

DRIVE AND CUTTING SPEED

Blade is driven by electromotor (placed on machine bow) through inverter for the purpose of reaching necessary cutting speed.

REGULATION OF CUTTING SPEED

The blade speed is selected by the potentiometer (203) on the control panel . Choose the speed depending on the type of material that must be cut .

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

CUTTING PRESSURE

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

Bow descent speed is adjusted by the regulator 68 located on the control panel .

CAUTION :

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

BLADE PRESSURE (FEED)

Blade pressure (feed) into cut is committed by cutting pressure which is changed through the regulator 68 on the panel .

Regulator 68 :

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

MAIN RULE :

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

COOLING

The coolant is sent through the pump piping 108 Draw.5 / Ann.3 towards the blades through cocks 109 Draw.9 / Ann.5 and then to the blade . The pump is located on the coolant tank 2 Draw.5 / Ann.3 located on the bed on the rear of the machine .

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

CAUTION :

Cast iron is cut without cooling !

SELECTION OF PROPER BLADE

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

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

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

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

SHAPE OF TEETH

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

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

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

BLADE QUALITY

SPECIAL type – blade suitable for all materials included alloy steel . It is not used in cases of rustless and acid – proof steel .

Average life – 20,000 to 30,000 cm² type C 45 .

BIMETALL type M 42 – blade suitable for all the materials indicated in the chart . We recommend its use to cut average amounts of material 50,000 to 70,000 cm² , C 45 .

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

TABLE FOR TEETH SELECTION

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

BLADE CHANGE

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

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

CAUTION !

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

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

PROCESS OF BLADE CHANGE

1. Bow upstroke and fixing (about 15° from the horizontal position) .
2. Switch off main switch .
3. Remove cut material from the machine .
4. Open bow guard 57 Draw.10 / Ann.5 and their locking , remove the blade guide guard 67-130 Draw.9-10 / Ann.5 .
5. Release as much as possible the blade guide by slackening the blade tightening handwheel 102 Draw.10 / Ann.5 .
6. Press the blade so that it leaves the guide and take it out from the machine , holding it by both hands .
7. Take blade into hands , make "rolling movement" and fasten blade by wire .
8. Check the correct rotation direction of the blade . The cutting edges of the teeth should be in the direction of the blade movement .
9. If it is not like this turn blade "on back" .
10. Insert the blade into the machine . (pass the blade through the guides and then through the driving pulleys) .

CAUTION !

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

CAUTION !

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

CAUTION !

Replace all safety guards and fix them securely in position

MATERIAL FIXING

Vice (no.9 , Draw.7 , Encl.4) is used for placing and fixing of cut material . Material is placed in front jaw (no.10 , Draw.7 , Encl.4) . By pressing push button (M) , hydraulic cylinder is activated and material is fixed. By pressing push button (L) , material in vice is released . It is setting up distance of vice opening by switch , mainly during repeated cutting cycle .

Vice is manually moved on linear guide to left or right dependent on arm deflection at angle cuts different to 0°. In this chosen position , vice is fixed by lever (no.49-118 Draw.8 Encl.4) .

CAUTION!

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

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

INSTRUCTIONS TOWARDS CORRECT CUTTING

TOOTH DEFORMATION

Each tooth of blade can tolerate certain pressure in dependence of blade quality. If you overcome this measure, tooth will break. It can be a moment of fulfilling space among teeth by greater amount of filings .

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

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

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

Frequent damage of blades causes not keeping of operating instructions .

BLADE LIFE

Damage of teeth is caused :

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

MATERIAL WITH VARIOUS CROSS SECTION

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

TEETH FOR CUTTING TUBES AND PROFILES



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

4.) ELECTRIC EQUIPMENT

1. Voltage system :
 - 3 F – 50 Hz , 400V electric drives
 - Low tension 24V controls
2. Electro-motors are protected from progressive overload by thermal relay and from short-circuit by fuse .
3. Appliances are connected from system 3F – 50 Hz , 400V with earthing protection .
4. Installed power :
 - overall installed power $P = 3 \text{ kW} \sim$
 - max current $I_n = 8 \text{ A} \sim$

B. MACHINE SERVICE AND CLEANING

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

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

COOLANT LIQUID

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

HYDRAULIC EQUIPMENT

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

Change of oil :

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

It is necessary to keep cleanness during service and repairs !

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

MACHINE CASING

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

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

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

CAUTION :

Do not use inflammable or evaporated substances as cleaners !

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

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

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

EQUIPMENT AND PRIMARY COMPONENTS

Components and equipment are constructed for bandsaw machine – models SPECIAL 650 DI . Usage of foreign components on those machines can negatively influence their operation . In those case , producer is not responsible for possible failures .

C. TRANSPORT AND PACKING

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

During transport , machine must be screwed on palette .

During transport by crane use cables hooked to the four lifting pegs Draw.3 / Ann.2 .

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

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

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

D. SPECIAL SAFETY CHECKS

A. Before using the machine , check carefully that the safety devices are in good working order , that the mobile parts are not blocked , that no parts are damaged and that all the components are installed correctly and are functioning properly .

B. Make sure , before operating the machine , that the screws of the guards and other protective devices are adequately secured , especially the screws of the bow guard .

C. Check that the safety microswitches and the emergency button are functioning correctly . Test them during a loadless machine cycle .

D. Make sure that the mobile guard does not leave uncovered an angle of more than 5° in order to prevent fingers from entering .

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

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

GENERAL SAFETY RULES

A. Wear appropriate clothing . The operator's clothing should not be loose or dangling nor should it have parts which could easily get caught . Sleeves should contain elastic .

Belts , rings or chains should not be worn . Long hair should be kept in a net .

B. Avoid unstable operating positions . Find a safe and evenly balanced position to operate the machine .

C. Keep the work area tidy , untidiness increases the risk of accidents .

D. Do not use the power supply cable to disconnect the plug from the socket . Protect the cable from high temperatures , oil or sharp edges . For outdoor use , only use extension cables which are in line with current regulations .

MEASURES TO PREVENT RESIDUAL RISKS

A. The removal of guards and tampering with the safety devices is strictly forbidden .

B. Gloves and safety glasses should always be worn .

C. Standard work clothing should be used and kept closed and should not have flapping parts .




D. The machine should not be cleaned with liquids under pressure .

E. In the event of fire , extinguishers should not be used unless they are the powder type . The electric power supply to the machine should always be disconnected in these circumstances .

F. Do not insert foreign bodies into the motor cover and to not supply the machine with voltage by tampering with the safety microswitches or main switch .

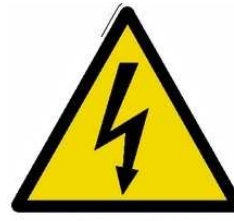
G. Take the necessary precautions to avoid the machine being started by other people during loading , adjustment , piece changing or cleaning .

ETICHETTE DI AVVISO , OBBLIGO , DIVIETO SULLA MACCHINA

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



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



E. INFORMATION ON ENVIRONMENTAL NOISE

An environmental noise test carried out on the SPECIAL 650 DI band saw machine , identical to the machine to which these operation instructions refer , has given the following results :

Acoustic radiation pressure

1. $L_{Aek} = 83.2 \text{ dB (A)}$.
2. $L_{peak} = 93.2 \text{ dB}$ (the maximum allowed value is 140 dB) .
3. The level of background noise has no influence = 48.5-54.2 dB (A)

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

F. LAYING OFF – DISMANTLING

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

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

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

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

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

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

G. LIST OF SPARE PARTS

| POS. | DESCRIPTION | CODE | Q.TY |
|------|-------------------------------------|----------|------|
| 1 | Base | 001/45 | 1 |
| 2 | Motor driver pump tray | 002/45 | 1 |
| 3 | Bench | 003/45 | 1 |
| 4 | Piece supporting table | 004/45 | 1 |
| 5 | Plate supporting table | 005/45 | 1 |
| 6 | Counter vice jaw | 006/45 | 2 |
| 7 | | | |
| 8 | Vice support | 097-A/45 | 1 |
| 9 | Auction vice jaw | 119/45 | 2 |
| 10 | Vice jaw | 118/45 | 1 |
| 11 | | | |
| 12 | Bench gib | 003-A/45 | 1 |
| 13 | Closing plate | 117-B/45 | 1 |
| 14 | Vice movement fillet | 014/45 | 1 |
| 15 | Rotating arm | 015/45 | 1 |
| 16 | Rotating arm pin | 016/45 | 1 |
| 17 | Bow cover hinge | 057-A/45 | 2 |
| 18 | Clamping lever M10x40 | 061/35 | 2 |
| 19 | Rotating arm flange | 019/45 | 1 |
| 20 | Bow | 020/45 | 1 |
| 21 | Driving pulley | 021/45 | 1 |
| 22 | Driven pulley | 022/45 | 1 |
| 23 | Reducer shaft | 023/45 | 1 |
| 24 | Reducer shaft spacer | 024/45 | 1 |
| 25 | Blade tensioning pin | 025/45 | 1 |
| 26 | Pin bearing blade tensioning spacer | 026/45 | 1 |
| 27 | Blade tensioning pin | 027/45 | 1 |
| 28 | Blade tensioning plate | 028/45 | 1 |
| 29 | | | |
| 30 | Blade tensioning plate guide | 030/45 | 2 |
| 31 | Blade tensioning screw | 031/45 | 1 |
| 32 | | | |
| 33 | Mobile Bladeguide arm | 033/45 | 1 |
| 34 | Mobile Bladeguide slide | 034-A/45 | 1 |
| 35 | Bladeguide gib | 035/45 | 1 |
| 36 | Fixed bladeguide | 036-A/45 | 1 |
| 37 | Movable bladeguide | 037-A/45 | 1 |
| 38 | Bow cylinder fork | 038/45 | 1 |
| 39 | | | |
| 40 | Rotation pin | 040/45 | 1 |
| 41 | Bow cylinder rear pin | 041/45 | 1 |
| 42 | Bow cylinder front pin | 042/45 | 1 |
| 43 | Bow cylinder | 043/45 | 1 |
| 44 | Vice cylinder | 044/45 | 1 |
| 45 | Rotation stop above jaw | 045/45 | 1 |
| 46 | Rotation stop lower jaw | 046/45 | 1 |
| 47 | Graduated scale | 047/45 | 1 |
| 48 | Rotation stop lever flat | 048/45 | 1 |
| 49 | Rotation stop lever | 049/45 | 1 |
| 50 | Rotation jaw stop screw | 050/45 | 1 |
| 51 | Rotation bracket pin | 051/45 | 1 |
| 52 | Rotation bracket | 052/45 | 1 |
| 53 | Rotating bushing | 053/45 | 1 |
| 54 | Bench lockup front flat | 054/45 | 1 |
| 55 | Bench lockup rear flat | 055/45 | 1 |
| 56 | Crucible | 056/45 | 1 |
| 57 | Bow guard | 057/45 | 1 |
| 58 | Bladeguide guard | 058/45 | 1 |
| 59 | Bow lockup flat | 059/45 | 1 |
| 60 | Blade adjustment plate | 060/45 | 4 |
| 61 | Lateral guard grate | 061/45 | 1 |
| 62 | Outlet/Inlet lateral guard | 062/45 | 2 |
| 63 | Potentiometer bracket | 063-A/45 | 1 |
| 64 | Potentiometer cover | 064/45 | 1 |

| | | | |
|-------|--|---------------|-----|
| 65 | Brush guard | 065/45 | 1 |
| 66 | Control panel | 066-D/45 | 1 |
| 67 | Bladeguide guard | 067/45 | 1 |
| 68 | Compensated regulator bow descent | 100/38 | 1 |
| 69 | Blade tensioning bushing | 069/45 | 1 |
| 70 | Rotation stop sliding block | 070-A/45 | 1 |
| 71 | | | |
| 72 | Brush support | 072/45 | 1 |
| 73 | Brush shaft | 073/45 | 1 |
| 74 | Brush pin | 074/45 | 1 |
| 75 | Rotating shaft small disk | 075/45 | 2 |
| 76 | Vice pressure regulator | 084-A/90 | 1 |
| 77 | Vice pressure manometer 0-40 BAR | 400/96 | 1 |
| 78 | Rear guard | 001-B/45 | 1 |
| 79 | Vice adjustment plug nut | 014-A/45 | 2+1 |
| 80 | Lifting stake | 001-A/35 | 4 |
| 81 | Bladeguide fixing plug | 090/45 | 1 |
| 82 | Belleville washer 40x20,4x1,5 DIN-2093 | 458/95 | 34 |
| 83 | | | |
| 84 | | | |
| 85 | Washer | 067/31 | 2 |
| 86 | | | |
| 87 | Vice cylinder support | 116/45 | 1 |
| 88 | Bow support block | 039-A/45 | 2 |
| 89 | | | |
| 90 | | | |
| 91 | Blade M42 5270x34x1,1 Z3/4 | PRO5270341134 | 1 |
| 92 | Oil retainer 75-90-8 | 136/45 | 2 |
| 93 | Bearing 30315 | 135/45 | 2 |
| 94 | Bearing 61903 2RS | 142/45 | 1 |
| 95 | Bearing 6004 2RS | 074/11 | 2 |
| 96 | Bearing 6000 2RS | 163/50 | 12 |
| 97 | Bearing 6308 2RS | 133/45 | 2 |
| 98 | Bearing 6309 2RS | 134/45 | 2 |
| 99 | Potentiometer | 362/90 | 1 |
| 100 | Bushing Glycodur 5055-60 | 130/45 | 2 |
| 101 | Unit V.24 c.a. | 084/90 | 1 |
| 102 | Blade tensioning handwheel | 029/03 | 1 |
| 103 | Circlip | 490/95 | 1 |
| 104 | Eye tie rod M12 | 035/38 | 2 |
| 105 | Return spring | 030/07 | 1 |
| 106 | Degrees display | 138/45 | 1 |
| 107 | Bushing Igus GFM-2528-16 | 131/45 | 2 |
| 108 | Coolant pump PA-35 | 089/90 | 1 |
| 109 | Blade guide tap | 031/96 | 2 |
| 110 | Water barrel | 510/95 | 2 |
| 111 | Adhesive tape fixed cap | 272/90 | 1 |
| 112 | Motor M100 | 230/80 | 1 |
| 113 | Reduction unit R 1/40 | 234/80 | 1 |
| 114 | | | |
| 115 | Handwheel ø40 M8x20 | 077/25 | 1 |
| 116 | Eye tie rod M8x40 | 525/95 | 1 |
| 117 | Eye tie rod M10x70 | 043/31 | 1 |
| 118 | Handle L.90 F.M12 | 075/11 | 1 |
| 119 | V RING VA 0-100 | 132/45 | 1 |
| 119-A | Circlip | 429/95 | 1 |
| 120 | Reduction unit flange | 076/45 | 1 |
| 121 | Brush | 141/45 | 1 |
| 122 | Brush rubber | 088/45 | 1 |
| 123 | | | |
| 124 | Bench lever nut | 024/03 | 1 |
| 125 | Cage AXK 2035 | 109/32 | 1 |
| 126 | Thrust bearing AS 20 35 | 108/32 | 2 |
| 127 | Motor unit M71 V400/50 3F 0,55 kW | 220/80 | 1 |
| 128 | Hydraulic panel | 066-A/45 | 1 |
| 129 | Brush fixing washer | 088/50 | 1 |
| 130 | Blade additional guard | 080/45 | 1 |
| 131 | Idler pulley washer | 082/45 | 1 |

| | | | |
|-----|---------------------------------------|---------------|----|
| 132 | Motor pulley washer | 081/45 | 1 |
| 133 | Joint fork M24x2 ø125 | 140/45 | 1 |
| 134 | Magnetic reader support | 079/45 | 1 |
| 135 | Centesimal magnetic bar | 138-A/45 | 1 |
| 136 | Tank handle | 038/09 | 1 |
| 137 | Tank | 077/45 | 1 |
| 138 | Tank support plate | 078/45 | 1 |
| 139 | Cover micro key support | 089/45 | 1 |
| 140 | Microswitch ERSCE E 100 01 S5I | 030/90 | 1 |
| 141 | Microswitch ERSCE | 022/90 | 1 |
| 142 | | | |
| 143 | Vice button | 086/90 | 2 |
| 144 | | | |
| | | | |
| | Bar stop | FERMO SP410MS | |
| | | | |
| | | | |
| | | | |
| | | | |
| 151 | Solenoid valve | 351/90 | 2 |
| 152 | Block solenoid valve | 074-C/90 | 1 |
| | | | |
| | | | |
| | | | |
| 200 | Plate with electrical components | 102/43 | 1 |
| 201 | Control panel | 053-G/38 | 1 |
| 202 | Fuse 10x38 gG 4A | 204/90 | 2 |
| 203 | Blade speed potentiometer | 098/90 | 1 |
| 204 | | | |
| 205 | Transformer 200VA 0-230-400V 0-24V | 033/90 | 1 |
| 206 | | | |
| 207 | Panasonic relay with 4 contacts 24Vac | 112/90 | 1 |
| | Socket Panasonic HC 4 | 112-A/90 | 1 |
| 208 | Fuse 10x38 aM 16A | 207/90 | 3 |
| 209 | Fuse carrier WEBER PCH3x38 | 092/90 | 2 |
| 210 | Omega holed bar | 048/90 | 1 |
| 211 | Omega holed bar | 046/90 | 1 |
| 212 | Terminal CABUR CBD.2 | 222/90 | 14 |
| 213 | | | |
| 214 | | | |
| 215 | Thermal relay SGC1-A1210 B7 24V | 032/90 | 3 |
| 216 | Auxiliary contact LA1-DN 11 | 200/90 | 1 |
| 217 | | | |
| 218 | Thermal relay SGR2-D1308 2.5-4A | 053/90 | 1 |
| 219 | Fuse carrier WEBER PCH1x38 | 093/90 | 1 |
| 220 | Fuse carrier WEBER PCH2x38 | 094/90 | 1 |
| 221 | Fuse 10x38 gG 6A | 205/90 | 1 |
| 222 | | | |
| 223 | Luminous button march | 087/90 | 4 |
| 224 | Button march TCQZB4BA2 | 086/90 | 2 |
| 225 | | | |
| 226 | Emergency button | 085/90 | 1 |
| 227 | | | |
| 228 | Main switch CA0120003207+G595 | 002/90 | 1 |
| 228 | Yellow terminal cover G3228 | 065/90 | 1 |
| 229 | Earth connection bar | 050/90 | 1 |
| 230 | Control panel seal | 054/38 | 1 |
| 231 | Fuse 10x38 aM 2A | 356/90 | 3 |
| 232 | Board SMD 200 | 357/90 | 1 |
| 233 | | | |
| 234 | Inverter 2,2 kW | 096/90 | 1 |
| 235 | | | |
| 236 | | | |

Brevi istruzioni d'uso

Indicatore di posizione

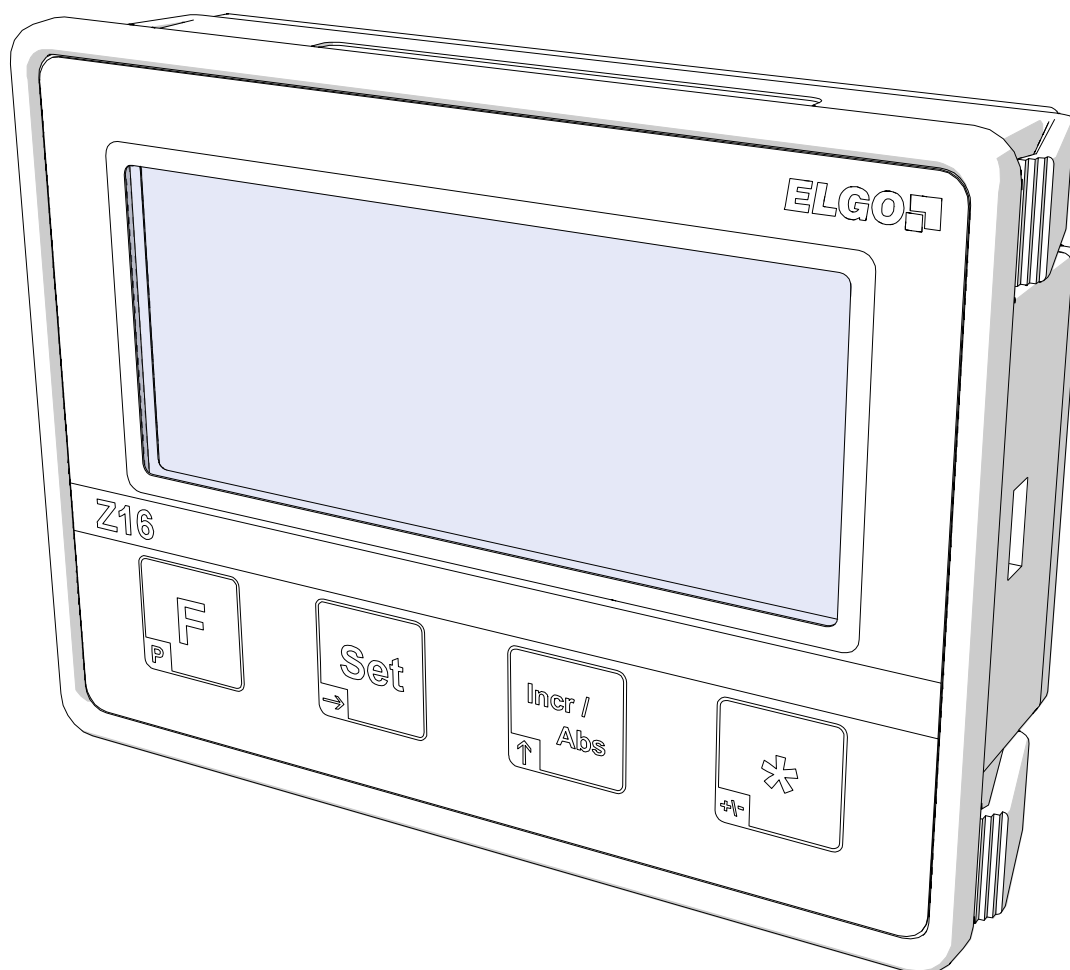
(Traduzione dall'originale delle brevi istruzioni d'uso)

Short Instructions

Position Indicator

(Translation of the original short instructions)

IZ16E



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Revisione documento Rev. 1

Data di emissione 27.06.2017

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2 Dati Tecnici / Technical Data

2.1 Visualizzatore / Indicator

| | |
|--|---|
| Display LCD | 7 decadi di conteggio con stato della batteria e unità di misura / Counter decades, battery status, units of measurement |
| Unità di misura / Units of measurement | mm, m, pollici, gradi " °" / mm, m, inch, „°“ |
| Angolo visuale / Viewing direction | 12.00 esatte / 12 o'clock |
| Alimentazione / Power supply voltage | Vano batteria integrato 1 x C oppure esterno 1,5V...3,0 V / Integrated battery 1 x C or external 1.5V ... 3.0 V |
| Protezione polarità / Reverse polarity protection | Nessuna / No |
| Velocità di movimento / Movement speed | max. 4m/s |
| Temperatura di funzionamento / Operating temperature | 0 ... + 50° C |
| Temperatura di immagazzinaggio / Storage temperature | -10 ... +60° C |
| Umidità / Humidity | max. 95 % non condensante / non-condensing |
| Pannello frontale / Front panel cut-out | larghezza x altezza / W x H = 93 ^{-0/+0.8} x 67 ^{-0/+0.6} mm |
| Spessore pannello frontale / Front panel thickness | 1,00 mm ... 3,50 mm / 1.00 mm ... 3.50 mm |
| Classe di protezione frontale / Protection class front | IP54 (in condizioni d'installazione) / (installed condition) |
| Classe di protezione retro / Protection class rear | IP40 |
| Classe di protezione del sensore / Protection class sensor | IP67 |

2.2 Banda Magnetica / Magnetic tape

| | |
|--|--|
| Temperatura di funzionamento / Operation temperature | 0 ... + 50° C |
| Precisione a 20° C in mm / Accuracy at 20° C in mm | $\pm(0,025 + 0,02 \times L)$ L = lunghezza di misura in metri $\pm(0.025 + 0.02 \times L)$ L = measuring length in meters |
| Coefficiente di espansione di lunghezza / Lengths coefficient of expansion | $\alpha = 16 \times 10^{-6} \times 1/K$ |

3 Osservazioni su questo Documento / About this Document



3.1 Funzione / Function

| | |
|---|--|
| I | Queste brevi istruzioni d'installazione riportano tutte le informazioni necessarie per l'installazione, l'attivazione, il sicuro funzionamento, nonché per la disinstallazione del visualizzatore IZ16E. |
| E | <i>These mounting instructions provide all the information you need for mounting, commissioning, the safe operation and disassembly of the IZ16E. The mounting instructions must be available in a legible condition and complete version in the vicinity of the device.</i> |

3.2 Gruppo di Obiettivi: Personale Autorizzato Qualificato / Target Group: Authorized Qualified Personnel

| | |
|---|--|
| I | <p>Tutte le istruzioni d'installazione qui riportate devono essere attuate solo da personale specializzato e autorizzato dall'operatore dell'impianto.</p> <p>Installare e mettere in funzione il visualizzatore solo dopo aver letto e compreso le presenti istruzioni. Assicurarsi di rispettare ogni prescrizione relativa alla sicurezza e alla prevenzione di incidenti sul luogo di lavoro.</p> <p>Per la scelta e l'installazione degli apparecchi, come per il collegamento tecnico di controllo, occorre da parte del costruttore di macchinari, una conoscenza qualificata delle relative norme e delle prescrizioni di legge.</p> |
| E | <p><i>All operations described in these mounting instructions must be carried out only by trained specialist personnel, authorized by the plant operator.</i></p> <p><i>Please make sure that you have read and understood these mounting instructions and that you know all applicable prescriptions regarding occupational safety and accident prevention prior to installation and commissioning.</i></p> <p><i>Selection and installation of the devices as well as their embedding into the controlling system require qualified knowledge of the applicable laws and normative requirements on the part of the machine manufacturer.</i></p> |

3.3 Simboli Usati / Explanation of the Symbols used

| | | |
|---|---|--|
| I |  | <p>Attenzione: La mancata osservanza di quest'avvertimento può causare disturbi o errori di funzionamento.</p> <p>Avvertimento: La mancata osservanza di quest'avvertimento può causare danni a persone o danneggiamenti al macchinario.</p> |
| E |  | <p>Caution: <i>Failure to comply with this warning notice could lead to interferences or malfunctions.</i></p> <p>Warning: <i>Failure to comply with this warning notice could lead to physical injury and/or damage to the machine.</i></p> |

3.4 Uso Appropriato / Appropriate Use

| | |
|---|--|
| I | L'indicatore di posizione IZ16E deve essere usato esclusivamente per le applicazioni autorizzate dal produttore. |
| E | <i>The IZ16E must be exclusively used for the applications authorized by the manufacturer.</i> |

3.5 Istruzioni Generali di Sicurezza / General Safety Instructions

| | |
|---|---|
| I | <p>L'operatore deve osservare le indicazioni di sicurezza contenute in queste istruzioni, gli standard d'installazione vigenti nel proprio paese, così come ogni altra disposizione sulla sicurezza e la prevenzione d'incidenti sul luogo di lavoro.</p> <p>Le informazioni contenute nelle presenti istruzioni sono fornite senza assunzione di alcuna garanzia. Si riserva ogni modifica tecnica delle stesse.</p> |
| E | <p><i>The user must observe the safety instructions in these mounting instructions, the country-specific installation standards as well as all applicable safety regulations and accident prevention rules.</i></p> <p><i>The information contained in these mounting instructions manual is provided without liability. Subject to technical modifications.</i></p> |

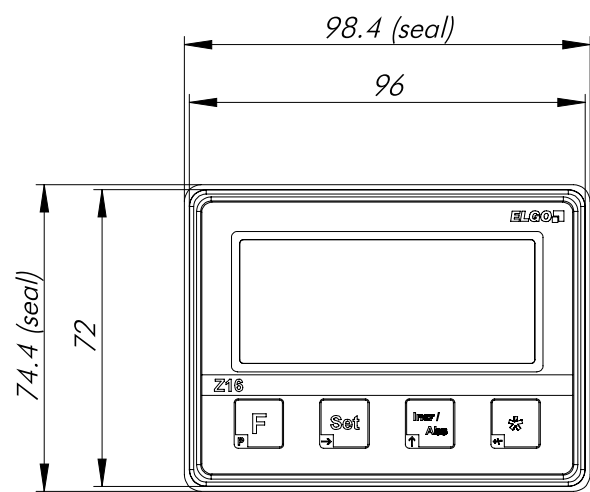
3.6 Esclusione di Responsabilità / *Exclusion of Liability*

| | |
|---|--|
| I | <p>Non si assume alcuna responsabilità per danni e disturbi di funzionamento dovuti a errori d'installazione o mancata osservanza delle presenti istruzioni. È esclusa, inoltre, ogni altra responsabilità del produttore per danni derivanti dall'impiego di ricambi o accessori non forniti dallo stesso.</p> <p>Per motivi di sicurezza è vietata ogni riparazione, trasformazione o modifica effettuata arbitrariamente e per eventuali danni da esse derivanti è esclusa ogni responsabilità del produttore.</p> |
| E | <p><i>We shall accept no liability for damage and malfunctions resulting from incorrect mounting or failure to comply with these mounting instructions. The manufacturer shall accept no liability for damage resulting from the use of unauthorized spare parts or accessories.</i></p> <p><i>For safety reasons, invasive work on the device as well as arbitrary repairs, conversions and modifications to the device are strictly forbidden; the manufacturer shall accept no liability for damage resulting from such invasive work, arbitrary repairs, conversions and/or modifications to the device.</i></p> |

4 Dimensioni / Dimensions

4.1 Visualizzatore / Indicator

Dimensioni in mm / Specifications in mm

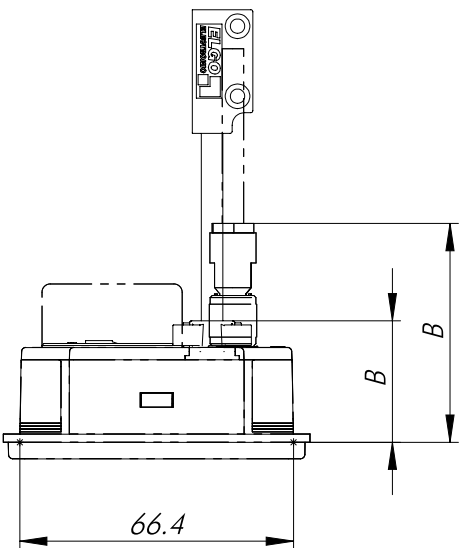
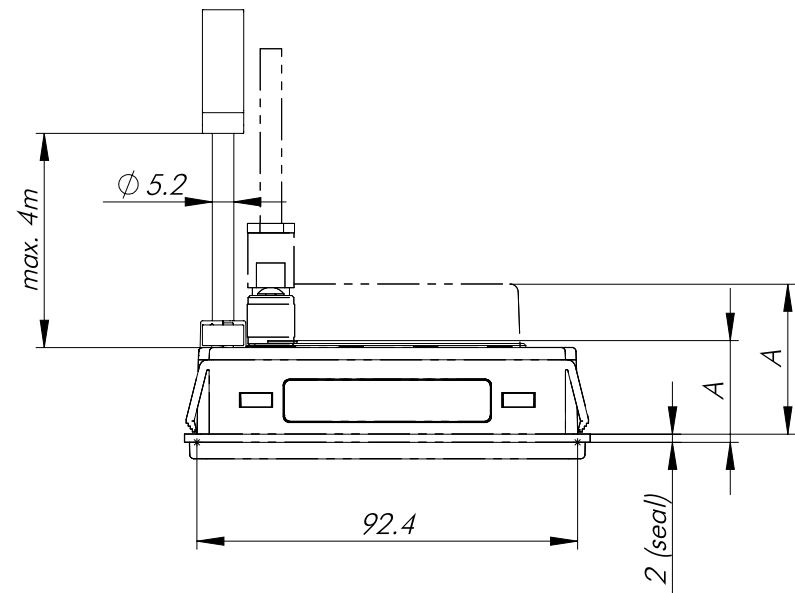


Dima di foratura / Front panel cut-out
93 ^{-0/+0.7} x 67 ^{-0/+0.6}

Spessore pannello frontale / Front panel thickness
1.00, 1.50, 2.00, 2.50

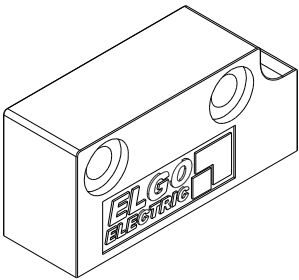
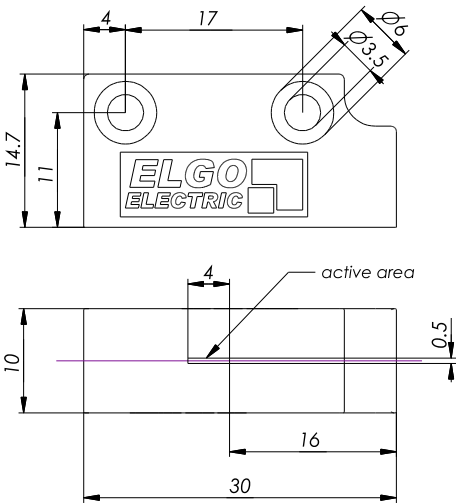
Senza guarnizione / Without seal
2.50 , 3.00, 3.50

| Tipo / Type | A (mm) | B (mm) |
|--------------------|--------|--------|
| IZ16E-XXX-1-XX,X-0 | 37 | 30 |
| IZ16E-XXX-1-XX,X-1 | 37 | 53 |
| IZ16E-XXX-6-XX,X-0 | 25 | 30 |
| IZ16E-XXX-6-XX,X-1 | 25 | 53 |



4.2 Sensore / Sensor

Dimensioni in mm / Specifications in mm



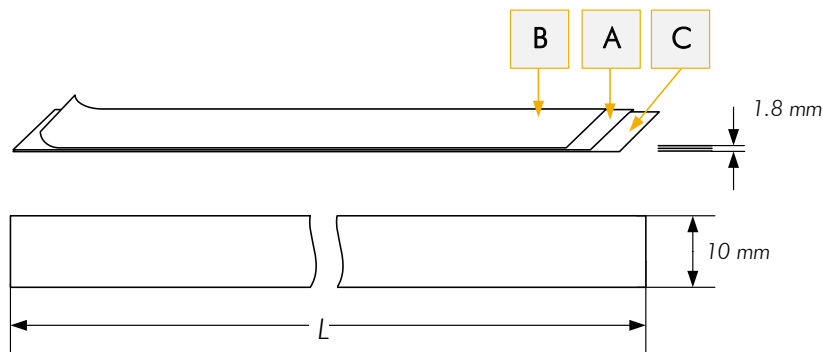
Importante: la distanza tra sensore e banda magnetica deve essere minore di quella indicata nella tabella.
Important: The distance between the sensor and the tape has to be smaller than see table.

| Tipo / Type | Distanta sensore - banda Distance sensor -tape |
|--------------------|---|
| IZ16E-XXX-X-XX,X-X | max.0,8 mm / max. 0.8 mm |

5 Installazione della Banda Magnetica / Installation Magnetic Tape

5.1 MB20-XX-10-1-R

La banda magnetica consiste di tre componenti. / The magnetic tape consists of three contents:



- A: Banda magnetica / magnetic tape
- B: Banda in acciaio che protegge la banda magnetica da danneggiamenti meccanici e rappresenta allo stesso tempo una chiusura magnetica / This magnetic flexible steel tape protects the rubber tape against mechanical defects and represents a magnetic feedback simultaneously.
- C: Questa componente serve come protezione meccanica della banda magnetica e viene incollata dopo l'installazione sulla banda stessa / This steel tape is used for the mechanical protection of the rubber tape and must be attached on the magnetic rubber tape after assembly.

5.2 Istruzioni per l'incollaggio delle Bande Magnetiche / Hints for sticking Magnetic Tapes

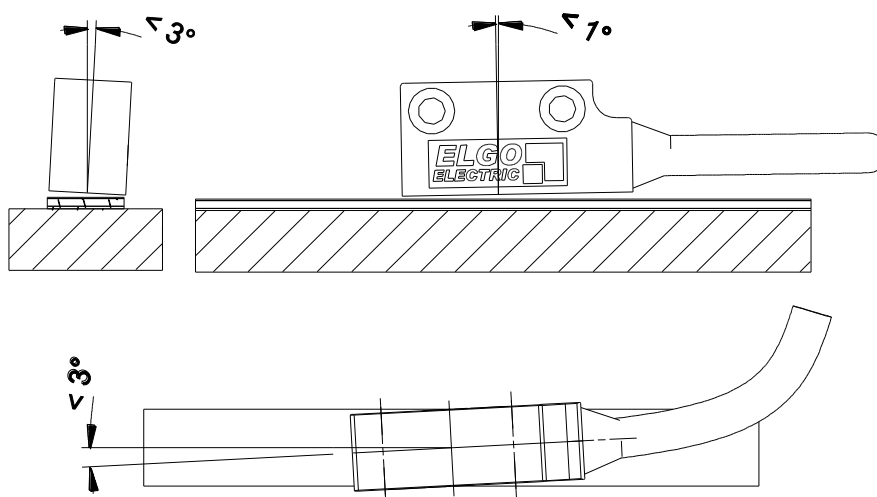


Le bande magnetiche consegnate insieme all'indicatore di posizione s'incollano sopra superfici pulite, asciutte e piate. La stabilità dell'incollaggio dipende direttamente dal contatto che l'adesivo sviluppa sulla superficie da incollare. Una forte pressione assicura un buon contatto con la superficie..

The provided sticky tapes stick best on clean, dry and plain surfaces. The stability of the adhesion is directly depending on the contact, which the adhesive develops to the surfaces stuck together. High pressure results in a good surface contact.





5.3 Tolleranze di montaggio / Installation Tolerances for the Sensor

Durante l'installazione del sensore devono essere osservate le seguenti tolleranze: /
When mounting the sensor, the following tolerances must be observed:









6 Struttura e Funzioni / Structure and Function

6.1 Modalità Operativa / Operation Mode

| | | |
|---|---|--|
| Valore di riferimento <i>Reference Value</i> |  | Premere simultaneamente / <i>Press simultaneous</i> |
| Incrementale – assoluto / <i>Relative - absolute</i> |  | Interruttore incrementale - assoluto / <i>Switch over absolute to incremental dimension</i> |
| Quote di offset / <i>Offset</i> |  | Questo tasto attiva le quote di offset da programmare / <i>Switches over between the adjustable Tool-Offsets</i> |
| Display in pollici / <i>Inch display</i> |  | Interruttore per indicazioni in pollici *Display in frazioni (1/64, 1/32, 1/16), decimale 0,001 / <i>Switch over to Inch operation mode</i> *Fraction display (1/64, 1/32, 1/16), Decimal 0,001 |

6.2 Livello dei Parametri / Parameter Level

| | | |
|--|---|---|
| Attivare il livello dei parametri / <i>Change to program mode</i> |  | Premere per circa 3 secondi / <i>Hold 3 sec. to enter program mode</i> |
| Selezionare i parametri / <i>Select parameter</i> |  | Premere una volta / <i>Press one time</i> |
| Selezionare le decadi / <i>Select decade</i> |  | Premere una volta / <i>Press one time</i> |
| Aumentare le decadi / <i>Increase decade</i> |  | Premere una volta / <i>Press one time</i> |
| Cambiare il segno / <i>Change of sign</i> |  | Premere una volta / <i>Press one time</i> |
| Abbandonare il livello dei parametri / <i>Back to normal mode</i> |  | Premere per circa 3 secondi / <i>Hold 3 sec. to exit program mode</i> |


6.3 Lista dei Parametri / *Parameter List*

| Parametro / <i>Parameter</i> | Specificazioni / <i>Specification</i> | Default |
|------------------------------|--|---------|
| P01: A | Configurazione del sistema / <i>Configuration</i> A = 0: direzione del conteggio positiva / <i>positive counting direction</i> A = 1: direzione del conteggio negativa / <i>negative counting direction</i> | 0 |
| P02: A | Modalità del display / <i>Display mode</i> : A = 0: mm – display in millimetri / <i>display „ mm “</i> A = 1: Inch – display in pollici / <i>display „ Inch “</i> A = 2: mm – display in metri / <i>display „ m “</i> A = 3: mm – display in gradi „ ° “ / <i>display „ ° “</i> A = 4: mm – display senza simbolil / <i>display no symbol</i> | 0 |
| P03: A | Punto decimale (0 ... 4) / <i>Decimal point (0 ... 4)</i> | 2 |
| P05: ABC | Blocco tasti / <i>Key lock</i> : A: “SET” (0 = non attivo / <i>not active</i>) – (1 = attivo / <i>active</i>) B: “Incr/Abs” (0 = non attivo / <i>not active</i>) – (1 = attivo / <i>active</i>) C: “*” (0 = non attivo / <i>not active</i>) – (1 = attivo / <i>active</i>) | 000 |
| P07:A | Risoluzione / <i>Resolution</i> : A = 0: Risoluzione 0,01mm / <i>Resolution 0.01 mm</i> A = 1: Risoluzione 0,1mm / <i>Resolution 0.1 mm</i> | 0 |
| P08: | Fattore di moltiplicazione / <i>Pulse scaling factor (0,0001...9,9999)</i> | 1,0000 |
| P09: | Valore di riferimento/ <i>Reference value (-999999,9 ... + 999999,9)</i> | 0,0 |
| P10: | Quota di offset 1 / <i>Offset 1 (-999999,9 ... + 999999,9)</i> | 0,0 |
| P11: | Quota di offset 2 / <i>Offset 2 (-999999,9 ... + 999999,9)</i> | 0,0 |
| P12: | Quota di offset 3 / <i>Offset 3 (-999999,9 ... + 999999,9)</i> | 0,0 |
| P13: A | Configurazione delle quote di offset / <i>Configuration offsets (0...3)</i> A = 0: Quote di offset non selezionabili / <i>Offsets not selectable</i> A = 1: Quota di offset 1 selezionabile / <i>Offset 1 selectable</i> A = 2: Quote di offset 1 & 2 selezionabili / <i>Offsets 1 & 2 selectable</i> A = 3: Quote di offset 1 & 2 & 3 selezionabili / <i>Offsets 1 & 2 & 3 selectable</i> | 3 |
| P90: A | (Senza funzione / <i>Without function</i>) | 0 |
| P99: | Versione del software / <i>Software version</i> | X.XX |

6.4 Calibrazione / *Calibration*

Il sensore deve trovarsi sulla banda magnetica! / *The sensor must be on the magnetic tape!*




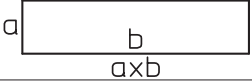
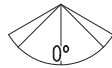




➔ Spengere l'apparecchio / *Switch off the device*

➔  Premere simultaneamente all'accensione dell'apparecchio /
Hold the button during switching on the device

➔ Così inizia la calibrazione dell'apparecchio e appare „CAL 0“ sul display. Adesso muovere in una direzione, lentamente, il sensore sulla banda magnetica. Alla fine della calibrazione (indicazioni “CAL 0” ... “CAL 4” il visualizzatore si trova nuovamente in modalità normale. / *This will start the sensor calibration and "CAL 0" is displayed. Now move the sensor slowly in one direction on the tape. Upon completion of the calibration (display "CAL 0"... "CAL 4") is the display again in normal mode.*

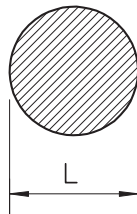
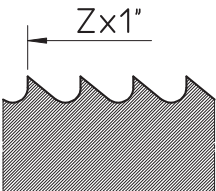
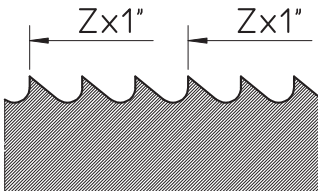


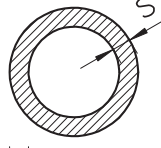
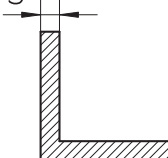
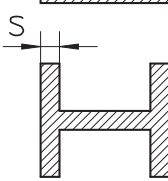
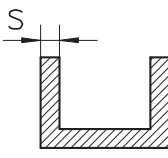
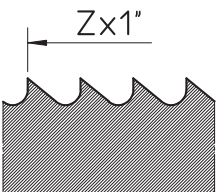
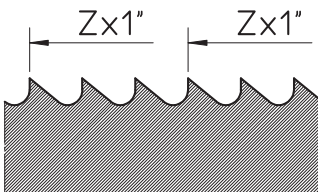
CAPACITA' DI TAGLIO - Special 650 DI

| CAPACITA' DI TAGLIO CUTTING CAPACITY - CAPACITE DE COUPE SCHNITTKAPAZITAET - CAPACIDAD DE CORTE |  |  |  |  |
|---|---|---|---|---|
|  | 200 | 460 | 450 | 450 x 620 |
|  | 200 | 450 | 430 | 400 x 450 |
|  | 200 | 240 | 300 | 220 x 320 |
|  | 200 | 450 | 410 | 340 x 450 |
|  | 200 | 300 | 300 | 270 x 420 |

SCELTA DELLA LAMA

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

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

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

| | |
|--|--|
| Velocità di taglio La macchina è dotata di variatore di velocità di taglio (inverter) | 22-73 m/1' |
| Cutting machine The machine is equipped with variable cutting speed (inverter) | 22-73 m/1' |
| Vitesse de coupe La machine est équipée avec la variable la vitesse de coupe (inverter) | 22-73 m/1' |
| Schnittgeschwindigkeit Die Maschine ist ausgestattet mit Variable Schnittgeschwindigkeit (Inverter) | 22-73 m/1' |
| Velocidad de corte La máquina está equipada con la variable de la velocidad de corte (inverter) | 22-73 m/1' |
| Materiale Material Materiel Material Material | Velocità di taglio m/1' Cutting machine m/1' Vitesse de coupe m/1' Schnittgeschwindigkeit m/1' Velocidad de corte m/1' |
| Acciai da costruzione Fe37+Fe42 Structural steel Fe37+Fe42 Aciers de construction Fe37+Fe42 Baustahl Fe37+Fe42 Acero de construccion Fe37+Fe42 | Pieni Solid Pleins Volles Material Pies 73~ Profilati Structural steel Profilés Profile Perfiles 73~ |
| Acciai da costruzione Fe50+Fe70 Structural steel Fe50+Fe70 Aciers de construction Fe50+Fe70 Baustahl Fe50+Fe70 Acero de construccion Fe50+Fe70 | 73~ |
| Acciai al carbonio C40+C60 Carbon steel C40+C60 Aciers au carbone C40+C60 Kohlenstoffstahl C40+C60 Acero de carbono C40+C60 | 73~ |
| Acciai legati Alloyed steel Aciers alliés Legierter Stahl Acero aleado | 36~ |
| Acciai inox Stainless steel Aciers inoxydables Rostfreier Stahl Acero inoxidable | 36~ |
| Ghisa grigia Grey cast iron Fonte grise Grauguß Fundición gris | 73~ |
| Leghe d'alluminio Aluminium alloys Alliages d'aluminium Legierungen aus Aluminium Aleación de Aluminio | 73~ |
| Bronzi Bronze Bronze Bronze Bronces | 73~ |

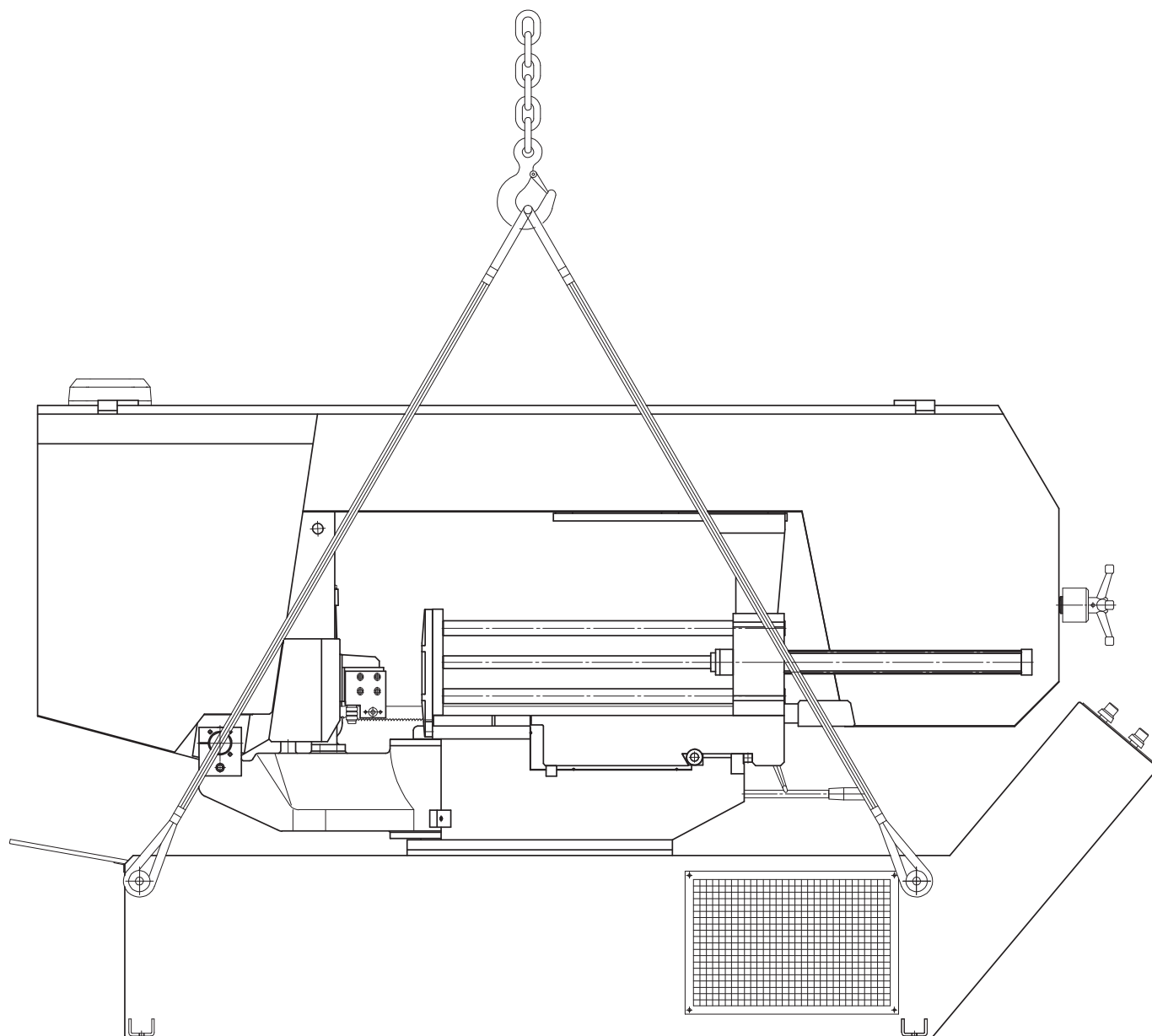
MOVIMENTAZIONE E TRASPORTO

Handling and transportation

Manutention et transport

Handhabung und Transport

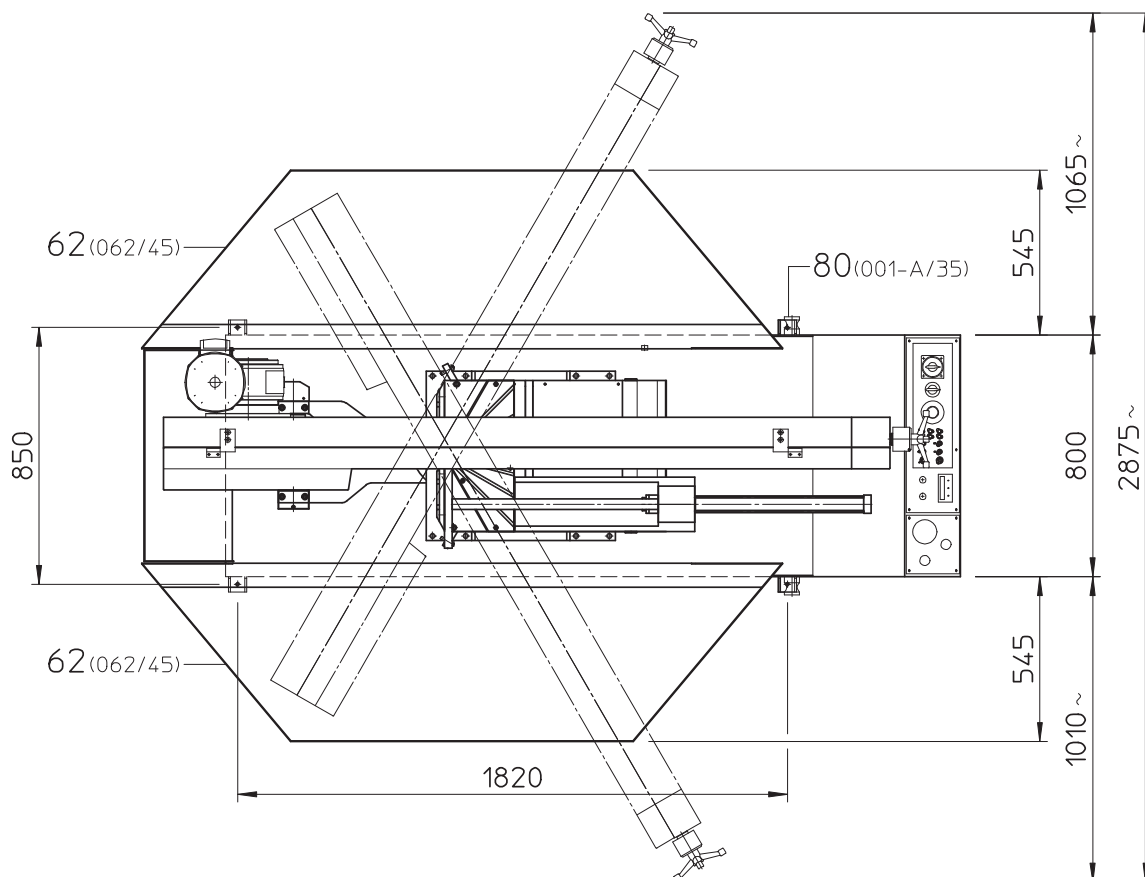
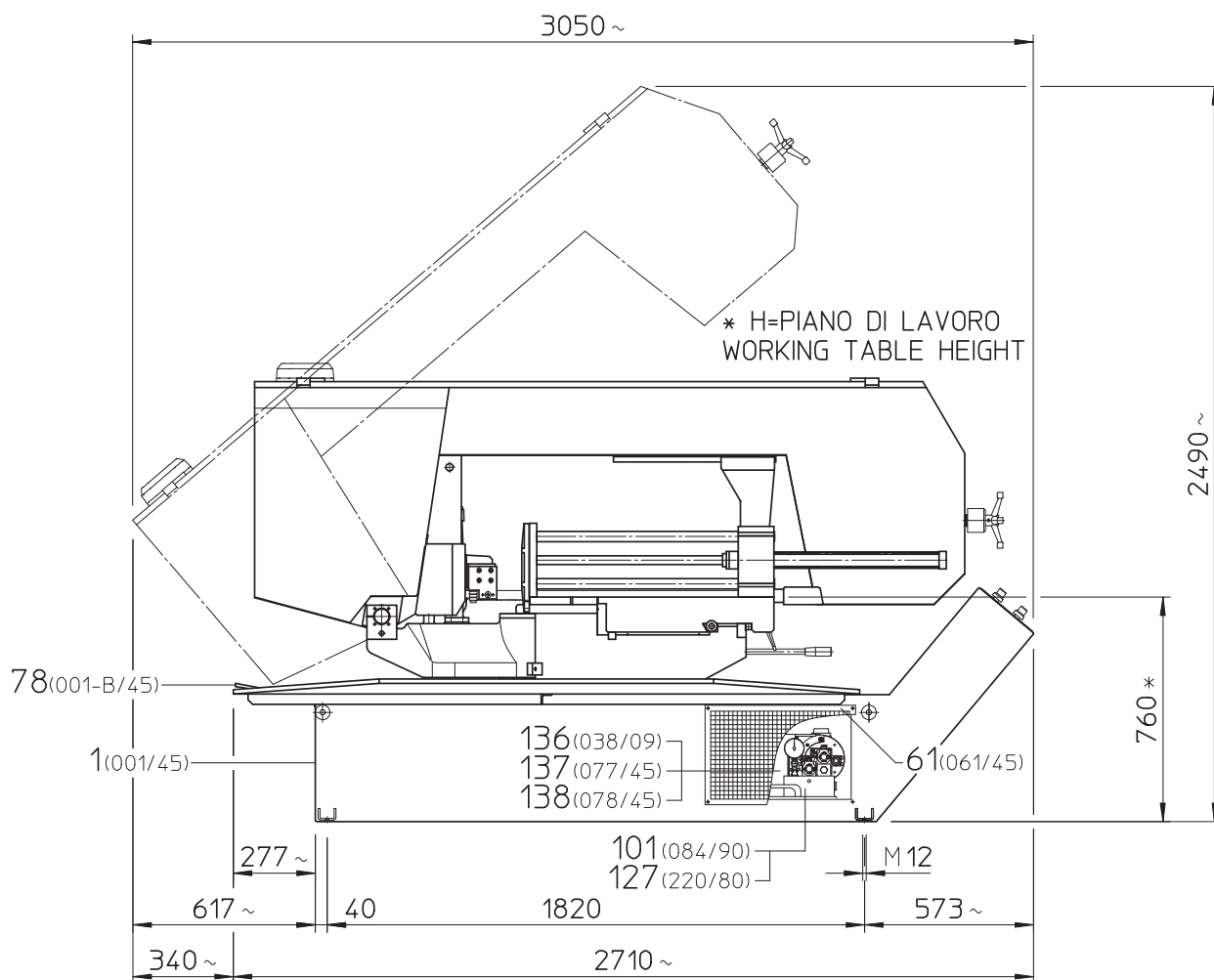
Movilizacion y transporte

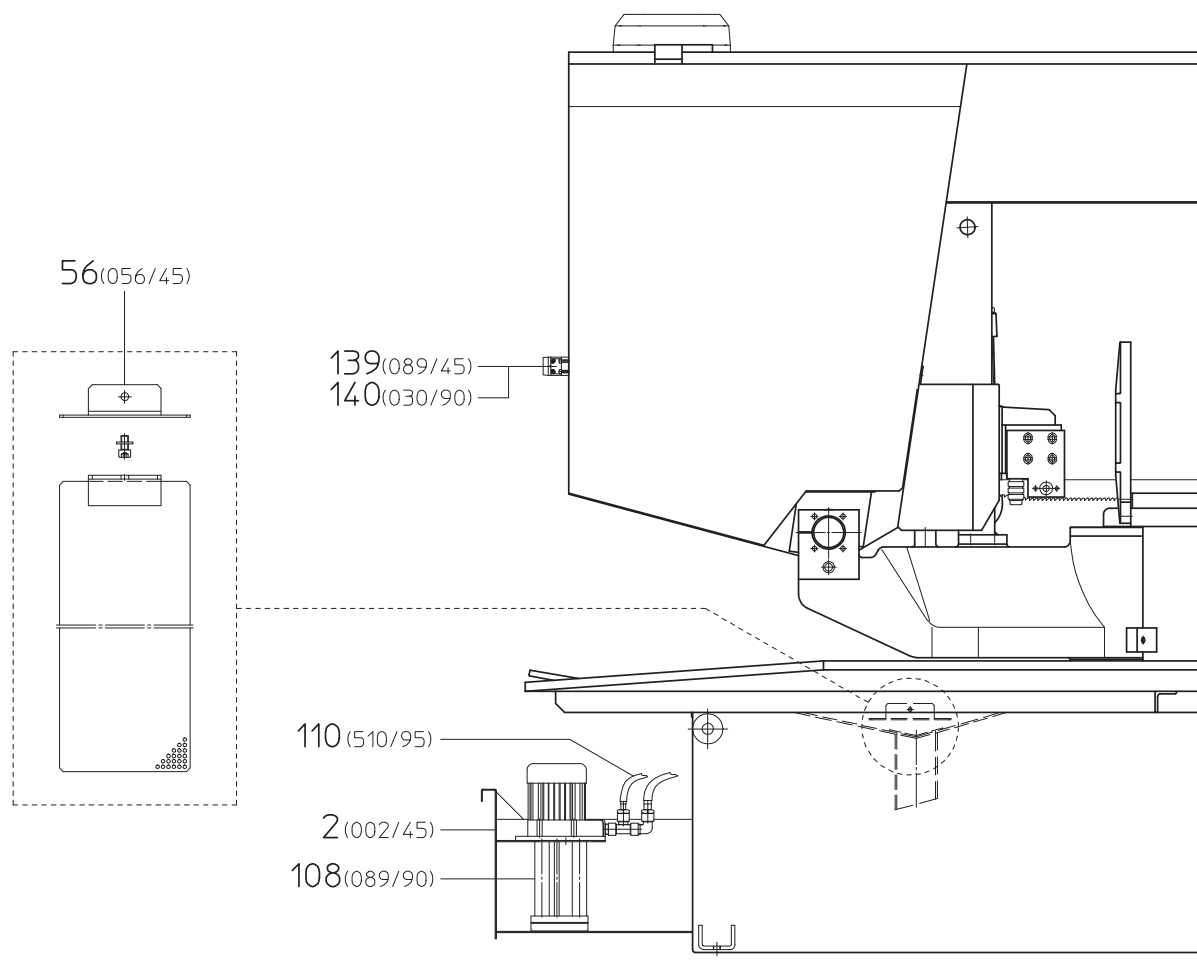


1250 kg~ - 12260 N

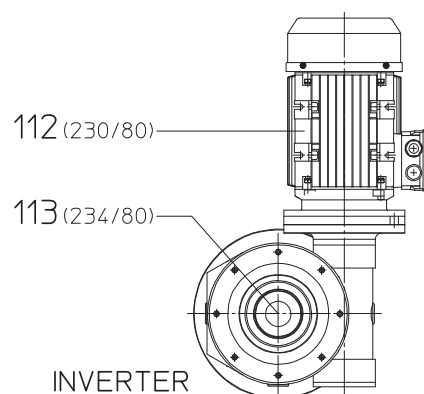
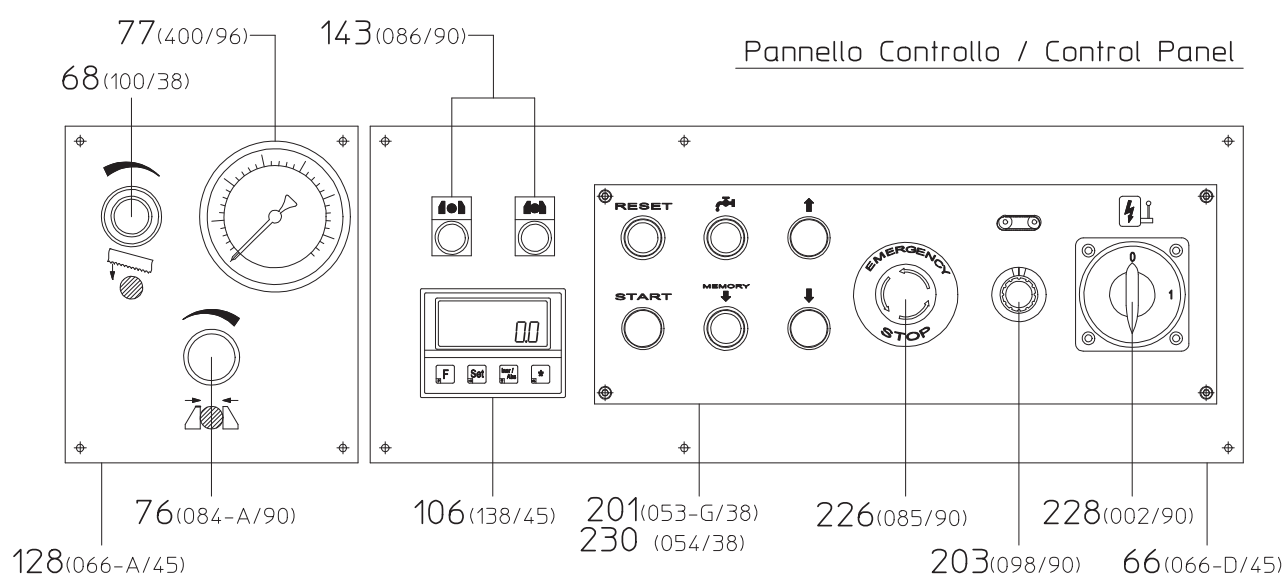
DIMENSIONI D'INGOMBRO ED INSTALLAZIONE

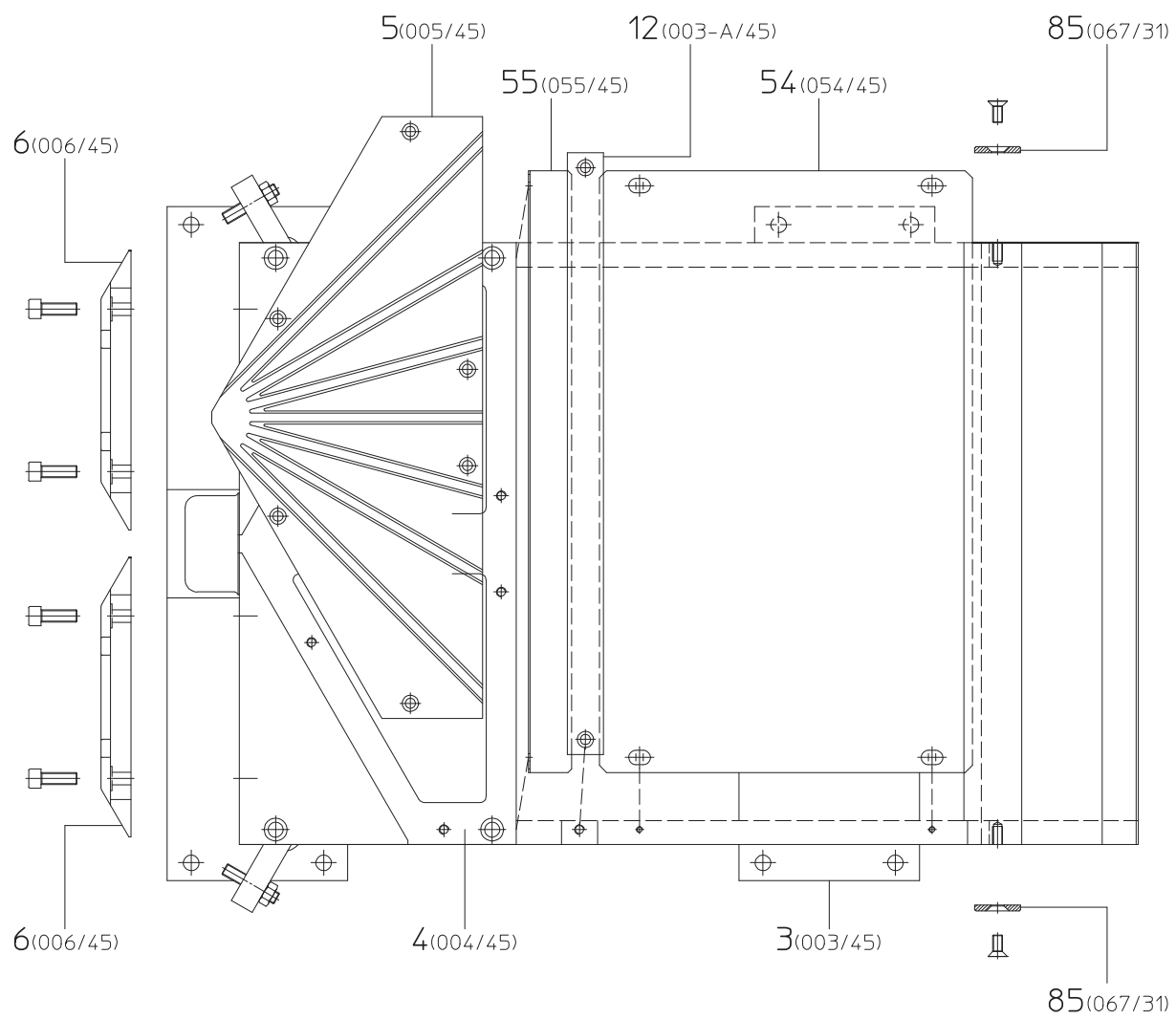
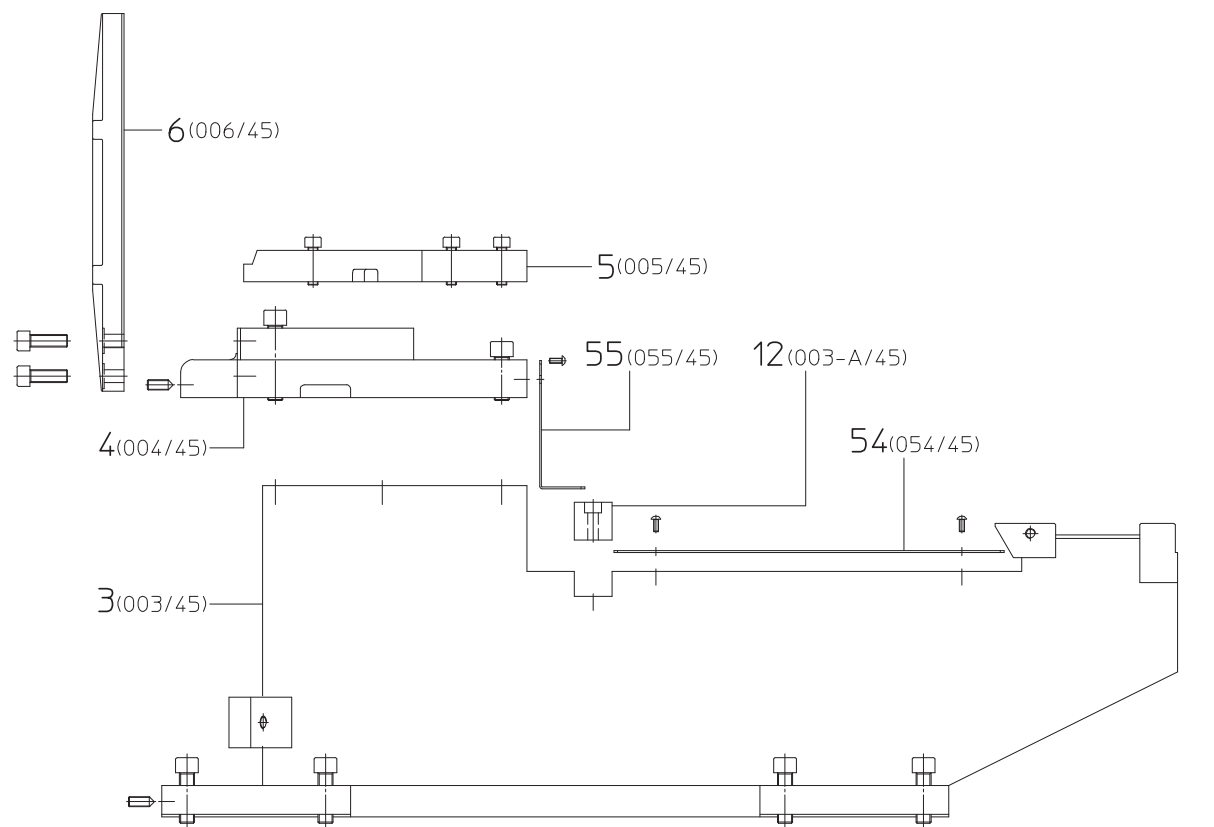
Overall dimensions and installation
Dimensions hors-tout et installation
Ausßenabmessungen und installation
Dimensiones máximas extremas e instalación

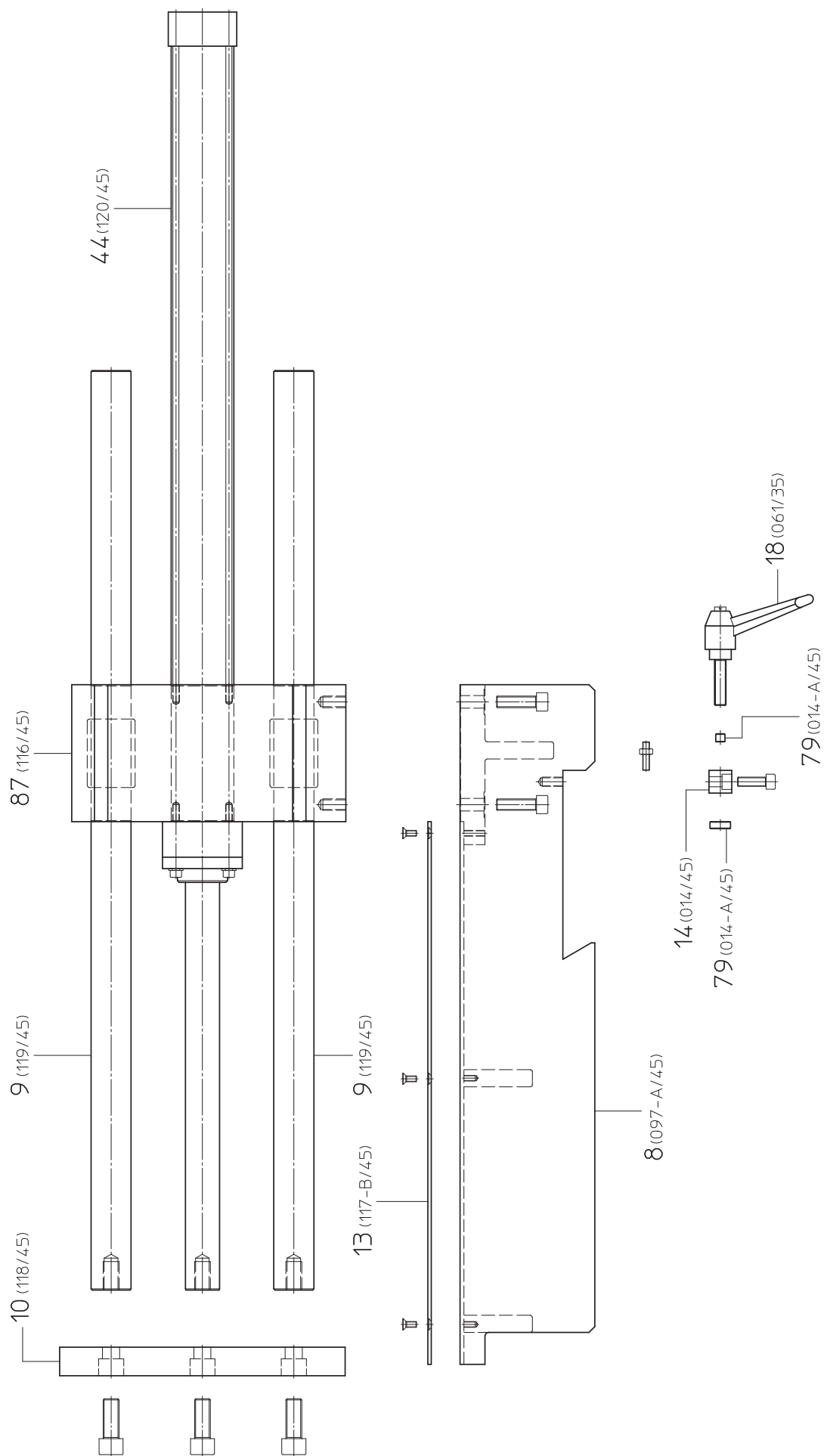


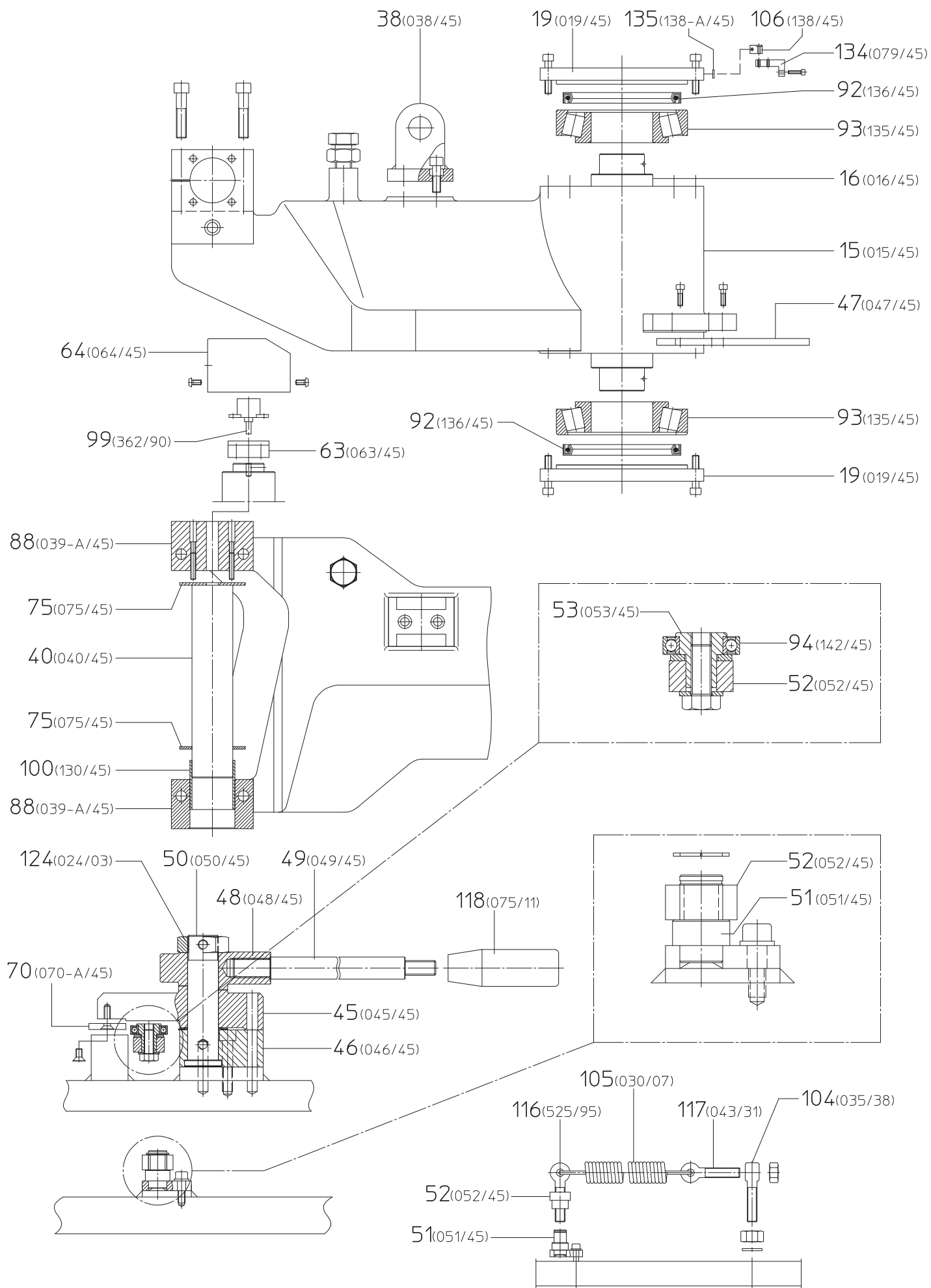


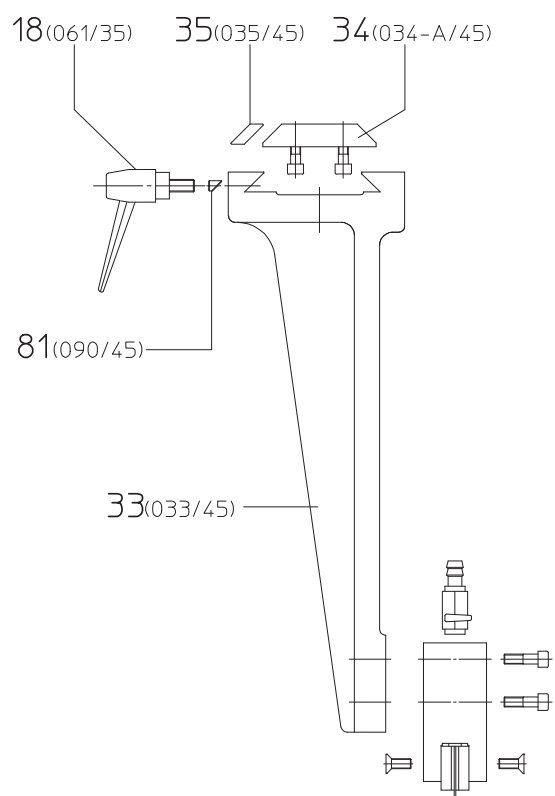
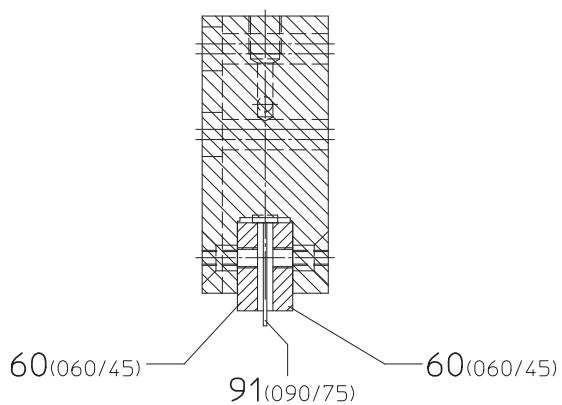
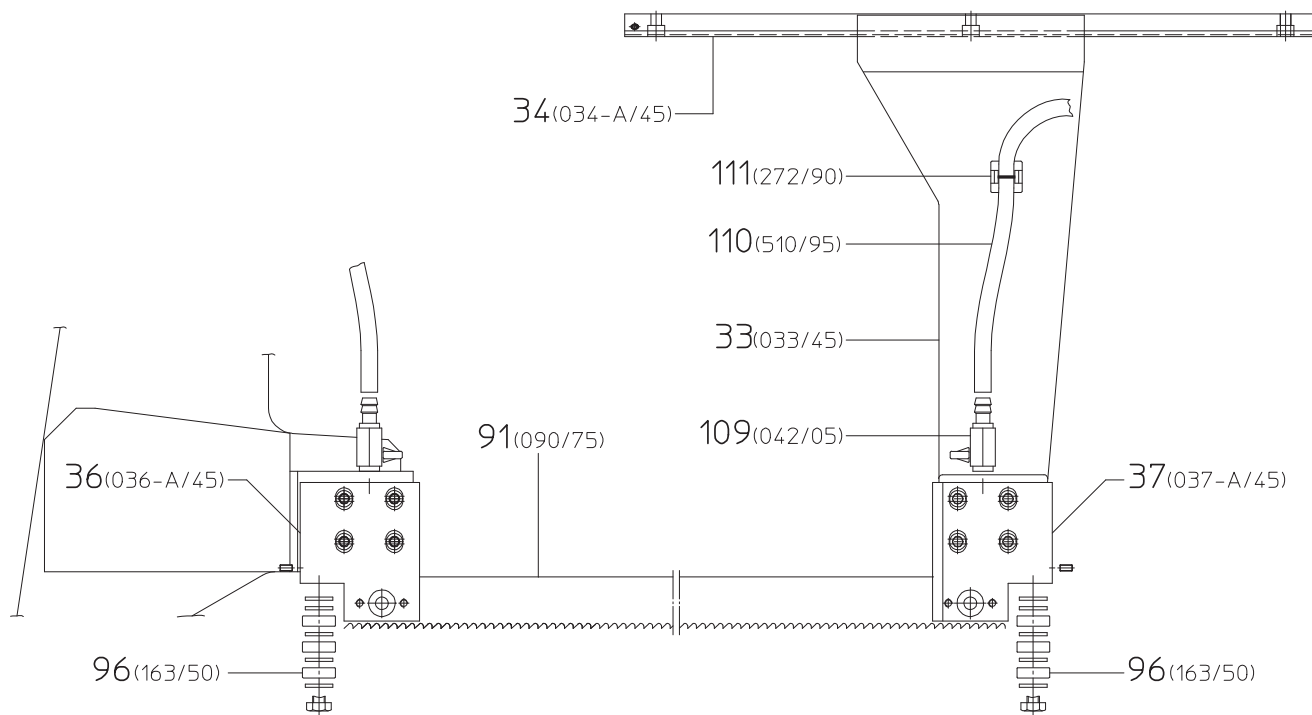
Pannello Controllo / Control Panel

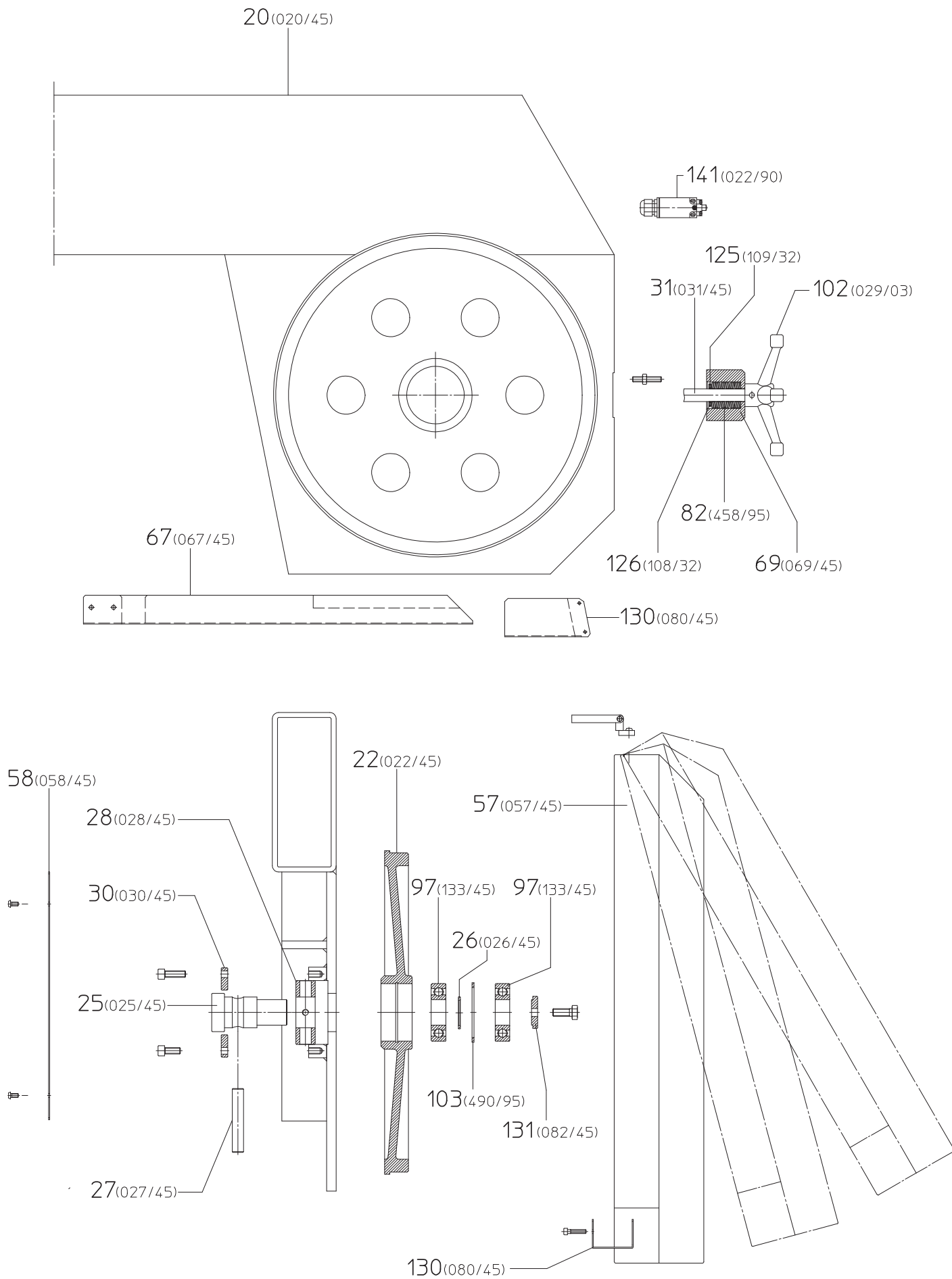


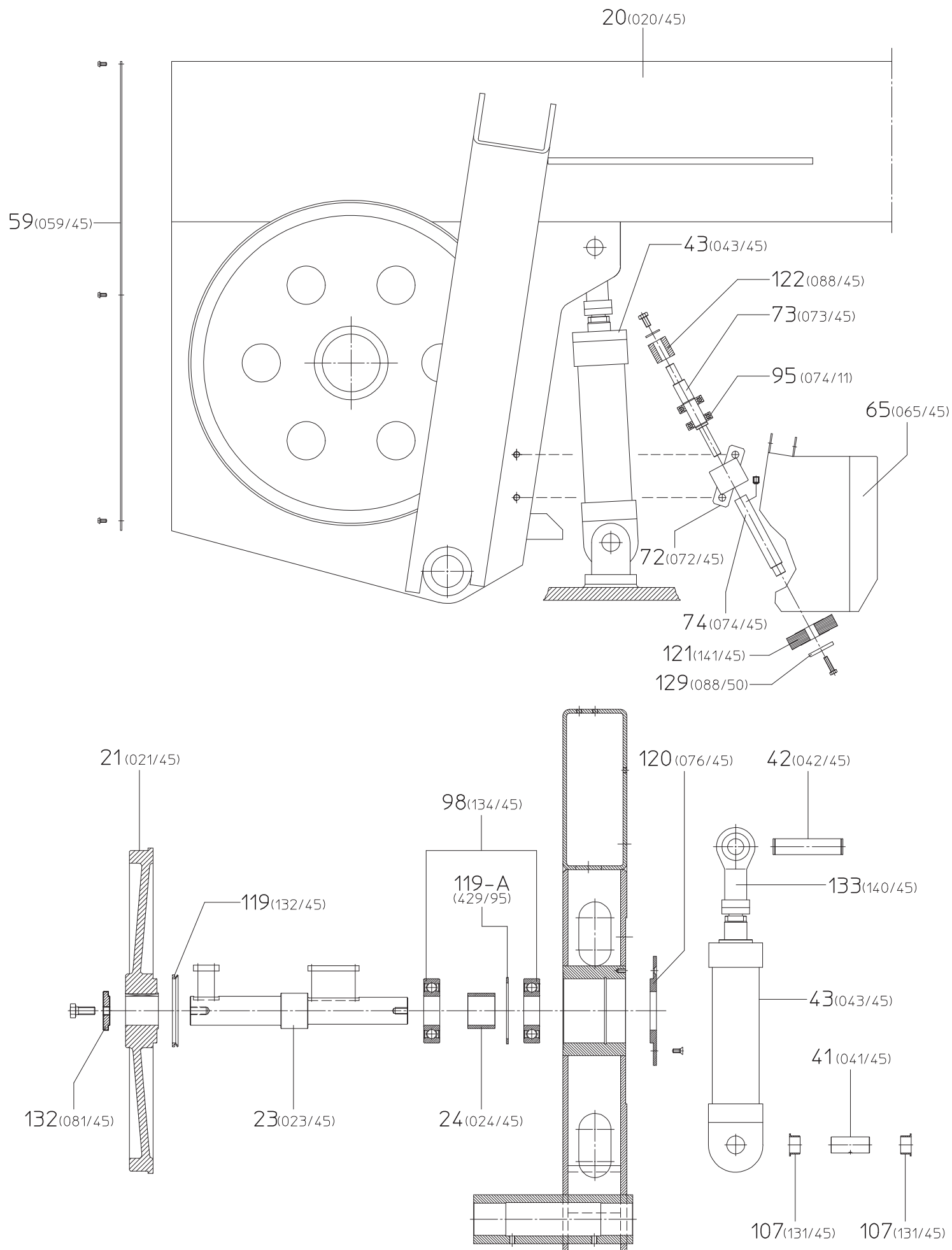










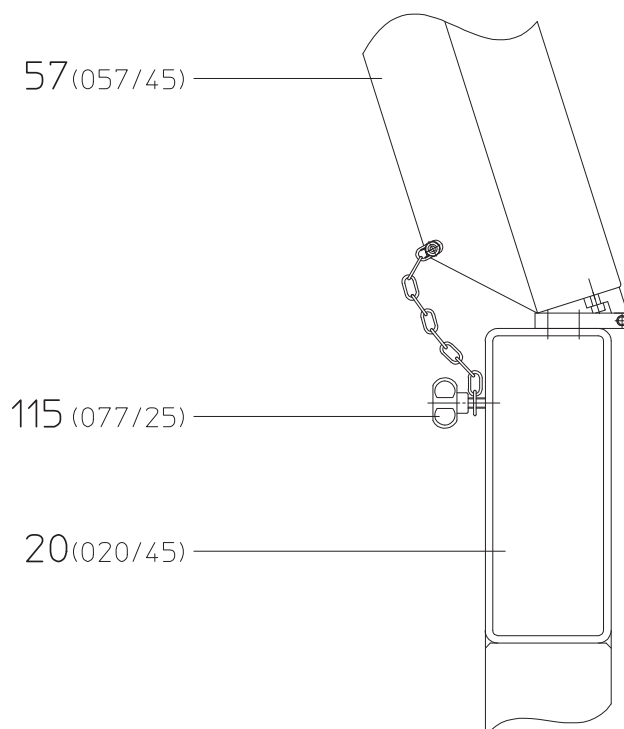
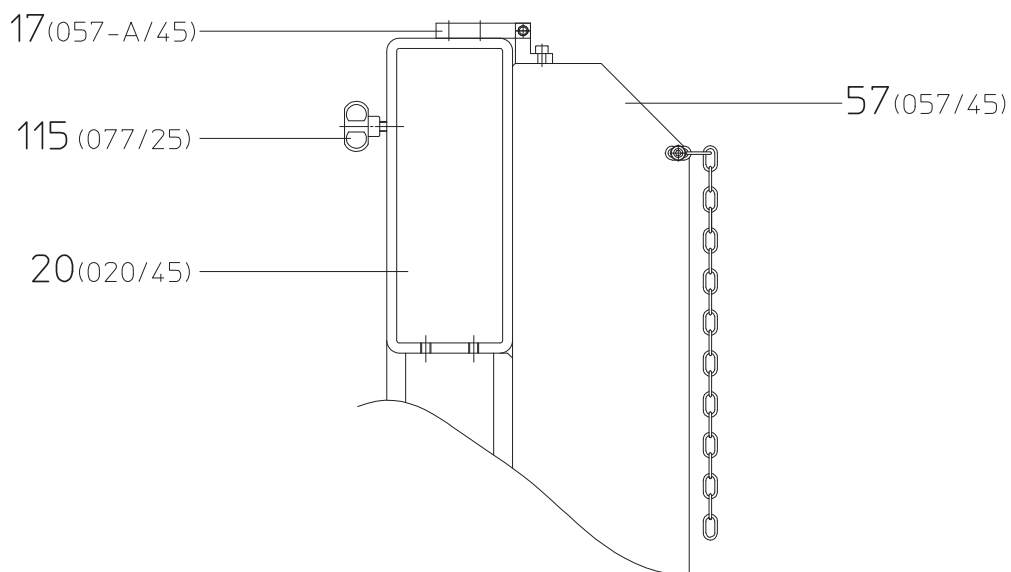


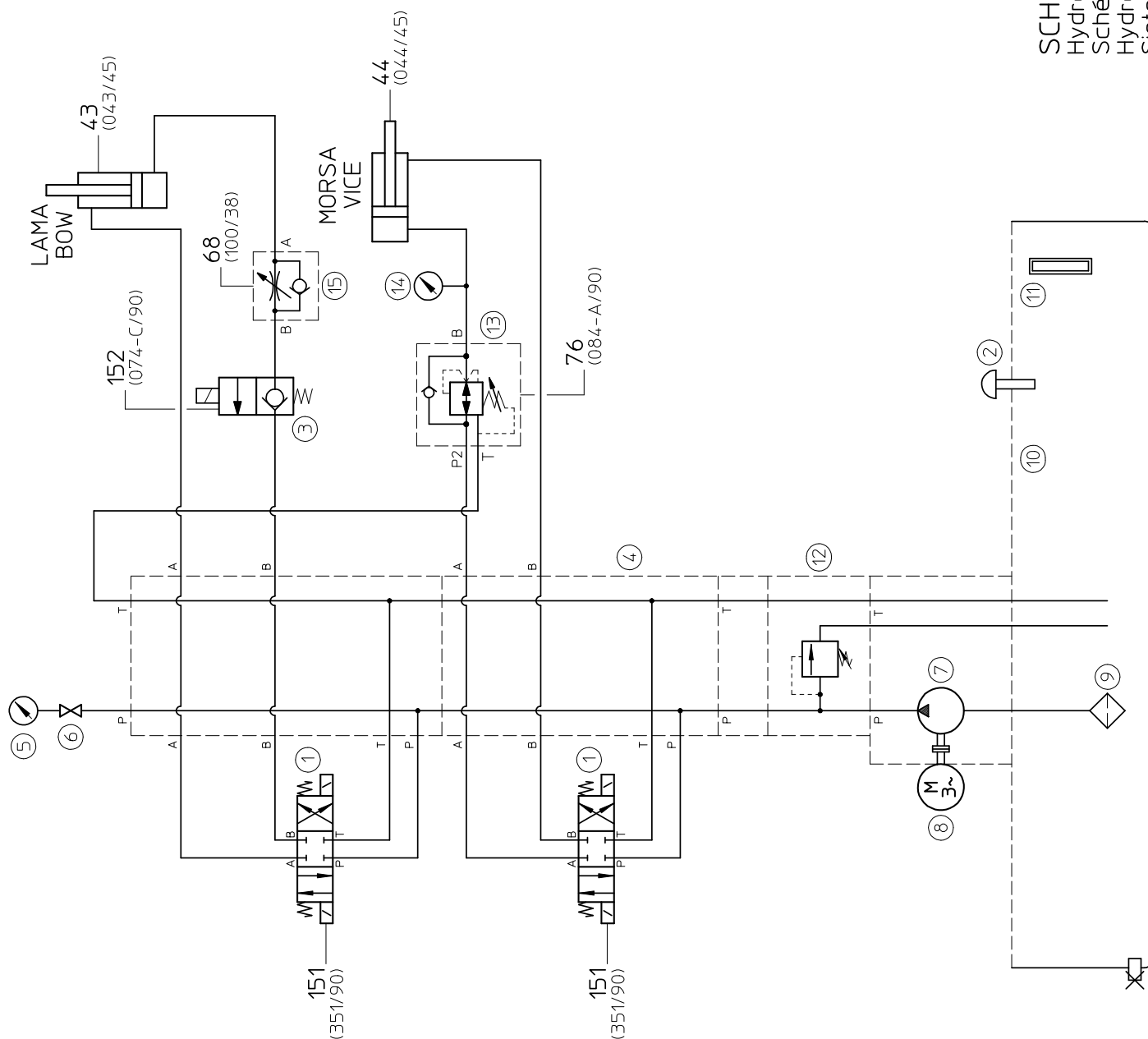
ATTENZIONE:

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

ATTENTION:

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



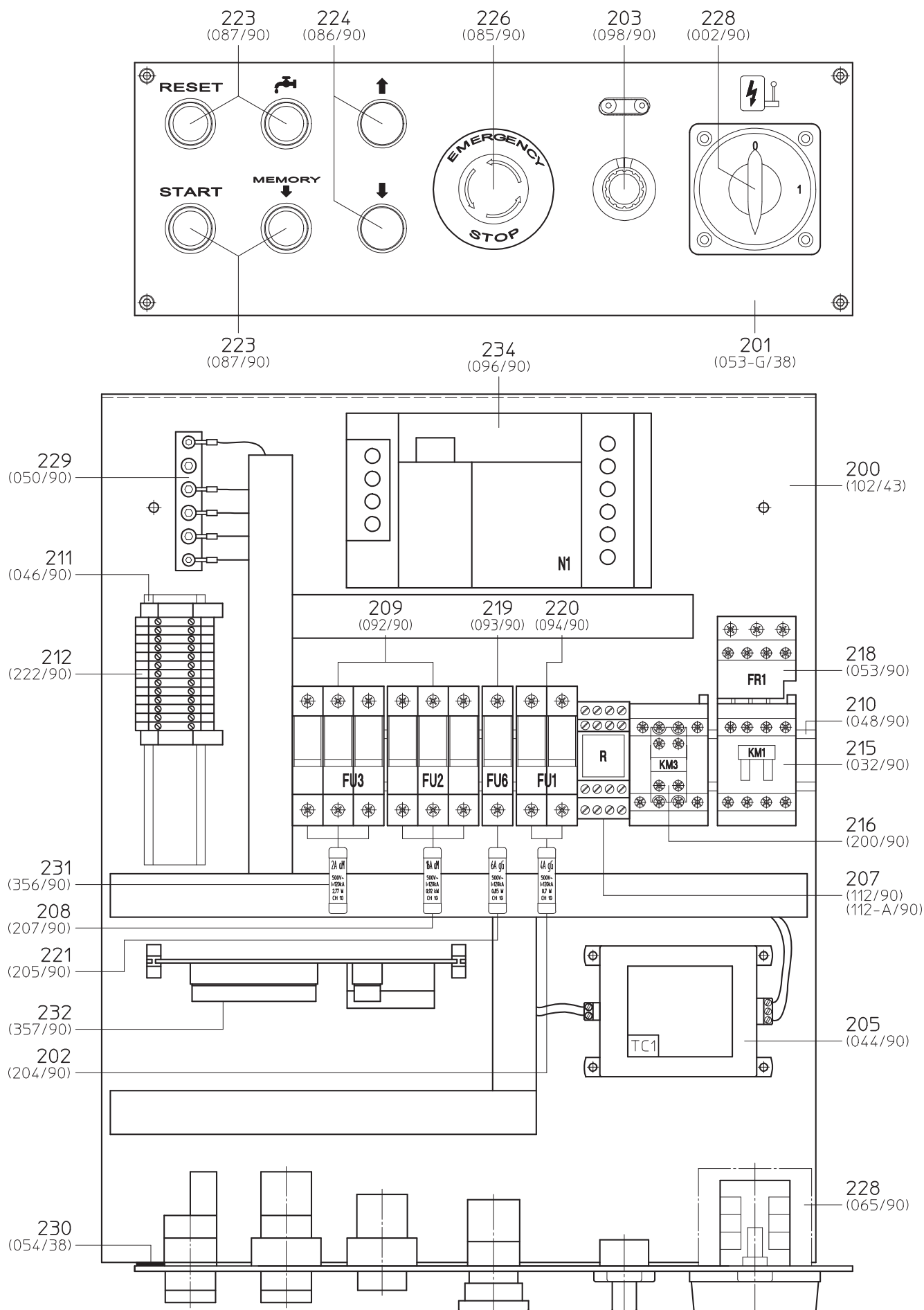


SCHEMA IMPIANTO IDRAULICO
Hydraulic Diagram
Schéma installation Hydraulique
Hydraulikschema
Sistema Hidraulica

| Pos. | Q.tà/Q.ty | Descrizione / Description | Cod. |
|------|-----------|---|---------------------------------------|
| 1 | 2 | ELETTROVALVOLA | ATOS DHI.0711.23 - 24VDC 351/90 |
| | | SOLENOID VALVE | |
| 2 | 1 | TAPPO | FBN TP1.02600 |
| | | PLUG | |
| 3 | 1 | ELETTROVALVOLA DI BLOCCO | 074-C/90 |
| | | LOCK SOLENOID VALVE | |
| 4 | 2 | BLOCCHETTO | BDK BL41 |
| | | BLOCK | |
| 5 | 1 | MANOMETRO 0/100 A.R. ø63 | ITALMANOMETRI |
| | | MANOMETER 0/100 A.R. ø63 | |
| 6 | 1 | ESCLUSORE | FLUID PRESS FPEA1G1/4B |
| | | SNUBBING PRESSURE GAUGE VALVE | |
| 7 | 1 | POMPA | MARZOCCHI N1031082 |
| | | PUMP | |
| 8 | 1 | MOTORE 0.55kW 4P B5 230/400V 50Hz | 220-B/80 |
| | | MOTOR 0.55kW 4P B5 230/400V 50Hz | |
| 9 | 1 | FILTRO | FBN FR1.02392 |
| | | FILTER | |
| 10 | 1 | SERBATOIO A DISEGNO | 077/45 |
| | | TANK AS DRAWING | |
| 11 | 1 | SPIA LIVELLO 1/2" | |
| | | WARNING LIGHT 1/2" | |
| 12 | 1 | COLLETTORE | HY TYPE A1 |
| | | MANIFOLD | |
| 13 | 1 | RIDUTTRICE DI PRESSIONE SINGOLA | 084-A/90 |
| | | PRESSURE REDUCING SINGLE | |
| 14 | 1 | MANOMETRO 0/60 A.P. ø63+MICROFD1/8".1/4 300 | |
| | | MANOMETER 0/60 A.P. ø63+MICROFD1/8".1/4 300 | |
| 15 | 1 | REGOLATORE DISCESA ARCO | 100/38 |
| | | COMPENSATED REGULATOR BOW DESCENT | |

PANNELLO COMANDI SPECIAL 650 DI

CONTROL PANEL SPECIAL 650 DI





| | ITALIANO | ENGLISH | DEUTSCH |
|------------|--|--|--|
| FR1 | RELE' TERMICO MOTORE POMPA OLIO | THERMAL RELAY OIL PUMP MOTOR | THERMISCHES RELAIS MOTOR ÖLPUMPE |
| FR2 | RELE' TERMICO MOTORE LAMA | THERMAL RELAY BLADE MOTOR | THERMISCHES RELAIS SÄGEBLATTMOTOR |
| FR3 | RELE' TERMICO MOTORE REFRIGERANTE | THERMAL RELAY COOLANT MOTOR | THERMISCHES RELAIS KÜHLMITTEL MOTOR |
| FR4 | RELE' TERMICO MOTORE ESTRATTORE TRUCIOLI | RELAY THERMAL CHIPS EXTRACTOR MOTOR | THERMISCHES RELAIS SPÄNEAUSZIEHER MOTOR |
| FR5 | RELE' TERMICO MOTORE GUIDA PEZZO | THERMAL RELAY GUIDA-PIECE MOTOR | THERMISCHES RELAIS MOTOR FÜHRUNGSSTÜCK |
| FTC | FOTOCELLULA PRESENZA MATERIALE | MATERIAL PRESENCE PHOTOELECTRIC CELL | PHOTOZELLE MATERIAL ANWESEND |
| FU1 | FUSIBILI PROTEZIONE TRASFORMATORE | FUSE TRANSFORMER PROTECTION | SCHUTZSICHERUNG TRAF0 |
| FU2 | FUSIBILI PROTEZIONE MOTORI | FUSE MOTOR PROTECTION | SCHUTZSICHERUNG MOTOR |
| FU3 | FUSIBILI PROTEZIONE POMPA REFRIGERANTE | FUSE COOLANT PUMP PROTECTION | SCHUTZSICHERUNG KÜHLMITTELPOMPE |
| FU4 | FUSIBILI PROTEZIONE ALIMENTATORE | FUSE FEEDER PROTECTION | SCHUTZSICHERUNG ZUFÜHRER |
| FU5 | FUSIBILI PROTEZIONE 24 V dc | FUSE 24 V dc PROTECTION | SCHUTZSICHERUNG 24 V dc |
| FU6 | FUSIBILI PROTEZIONE 24 V ac | FUSE 24 V ac PROTECTION | SCHUTZSICHERUNG 24 V ac |
| FU7 | FUSIBILE PROTEZIONE MOTORE INVERTER | FUSE INVERTER PROTECTION | SCHUTZSICHERUNG GESCHWINDIGKEITUMRICHTER |
| G | GALLEGGIANTE | FLOAT | SCHWIMMER |
| H1 | SPIA PRESENZA LINEA | SPY LINE PRESENCE | LINIENPRÄSENZ LAMPE |
| H2 | SPIA LAMA IN TENSIONE | SPY BLADE IN TENSION | BLATT SPANNUNG LAMPE |
| H3 | SPIA START CICLO | SPY CYCLE START | ZYKLUS START LAMPE |
| K | TELERUTTORE TERMORESISTENZA | THERMO-RESISTANCE CONTROL SWITCH | FERNSCHALTER WIDERSTANDSTHERMOMETER |
| KM0 | TELERUTTORE ALIMENT. INVERTER | INVERTER FEEDING CONTROL SWITCH | FERNSCHALTER FREQUENZUMRICHTER VERSORGUNG |
| KM1 | TELERUTTORE MOTORE POMPA OLIO | OIL PUMP MOTOR REMOTE CONTROL SWITCH | FERNSCHALTER ZENTRALHYDRAULIK MOTOR |
| KM2 | TELERUTTORE MOTORE LAMA | BLADE MOTOR REMOTE CONTROL SWITCH | FERNSCHALTER SÄGEBLATTMOTOR |
| KM3 | TELERUTTORE POMPA REFRIGERANTE | COOLANT PUMP REMOTE CONTROL SWITCH | FERNSCHALTER KÜHLMITTELPUMPE |
| KM4 | TELERUTTORE ESTRATTORE TRUCIOLI (COCLEA) | CHIP EXTRACTOR CONTROL SWITCH | FERNSCHALTER SPÄNEAUSZIEHER |
| KM5 | TELERUTTORE MOTORE GUIDA PEZZO | THERMAL RELAY GUIDA-PIECE MOTOR CONTROL SWITCH | FERNSCHALTER MOTOR FÜHRUNGSSTÜCK |
| KM6 | TELERUTTORE POMPA RECUPERO REFRIGERANTE | COOLANT RECYCLE PUMP THERMAL RELAY | FERNSCHALTER WIEDERGEWINNUNG KÜHLMITTELPUMPE |
| 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 | KOPFDREHUNG MOTOR |
| M50 | MOTORE GUIDA PEZZO | GUIDA-PIECE MOTOR | FÜHRUNGSSTÜCK MOTOR |



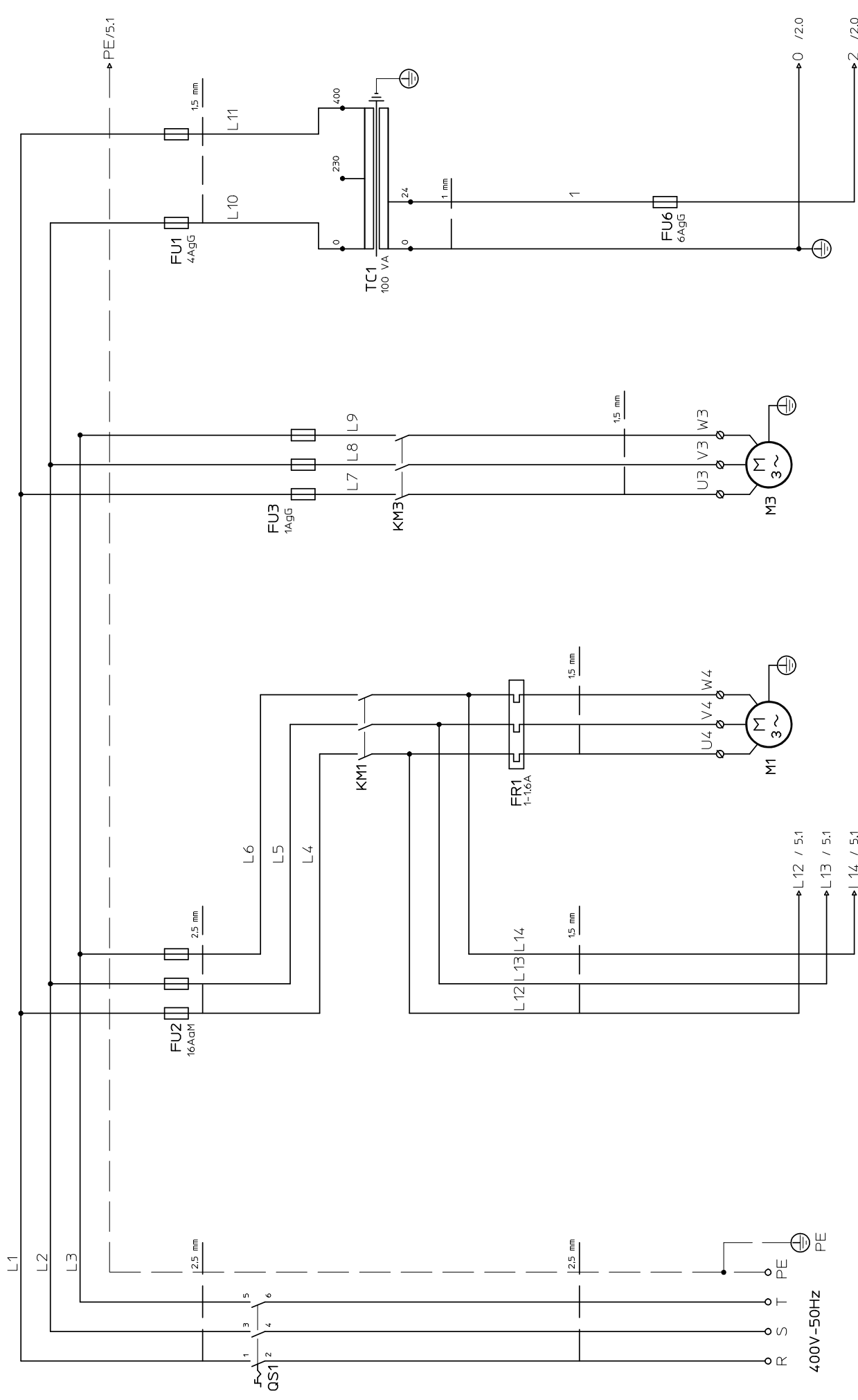
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| M60 | MOTORE RECUPERO REFRIGERANTE | COOLANT RECYCLE MOTOR | MOTOR WIEDERGEWINNUNG KÜHLMITTELPUMPE |
| M6 | MOTORE AVANZAMENTO MATERIALE | MATERIAL FEEDING MOTOR | MOTOR MATERIALVORSCHUB |
| N1 | INVERTER MOTORE LAMA | BLADE MOTOR INVERTER | INVERTER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



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| SB90 | PULSANTE DI SBLOCCO | RELEASE BUTTON | AUSLÖSER TASTE |
| SQ1 | MICROINTERRUTTORE ROTTURA LAMA | MICROSWITCH BLADE FAILURE | ENDSCHALTER BRUCH BLATT |
| SQ10 | MICROINTERRUTTORE START A PEDALE | PEDAL MICROSWITCH START | MIKROSCHALTER START FUßPEDAL |
| SQ11 | MICROINTERRUTTORE CHIUSURA MORSAA PEDALE | PEDAL VICE CLOSING MICROSWITCH | MIKROSCHALTER FUßPEDAL SCHLIESSUNG SCHRAUBSTOCK |
| SQ15 | FINECORSO GUIDA PEZZO AVANTI | MICROSWITCH GUIDE-PIECE FORWARD | ENDSCHALTER FÜHRUNGSSTÜCK NACH VORNE |
| SQ16 | FINECORSO GUIDA PEZZO INDIETRO | MICROSWITCH GUIDE-PIECE BACKWARD | ENDSCHALTER FÜHRUNGSSTÜCK NACH HINTEN |
| SQ18 | FINECORSO SOLLEVATORE ALTO | MICROSWITCH LIFT UP POSITION | ENDSCHALTER HEBWERK NACH OBEN |
| SQ2 | MICROINTERRUTTORE CARTER APERTO 1 | MICROSWITCH PROTECTION CASE | ENDSCHALTER SCHUTZGEHÄUSE |
| SQ02 | MICROINTERRUTTORE CARTER APERTO 2 | COVER OPEN MICROSWITCH | ENDSCHALTER SCHUTZ GEÖFFNET |
| SQ20 | PRESSOSTATO CHIUSURA MORS | VICE PRESSURE SWITCH | SPANNDRUCK TASTE |
| SQ3 | FINECORSO CARRO AVANTI | MICROSWITCH CARRIAGE FORWARD | ENDSCHALTER WAGEN VORNE |
| SQ30 | FINECORSO ROTAZIONE -45° | MICROSWITCH -45° ROTATION | ENDSCHALTER -45° GEHRUNG |
| SQ4 | FINECORSO CARRO INDIETRO | MICROSWITCH CARRIAGE BACK | ENDSCHALTER WAGEN ZURÜCK |
| SQ5 | FINECORSO TESTA ALTA | MICROSWITCH HEAD / BOW UP | ENDSCHALTER BÜGEL NACH OBEN |
| SQ6 | FINECORSO TESTA BASSA | MICROSWITCH HEAD / BOW DOWN | ENDSCHALTER BÜGEL NACH UNTEN |
| SQ7 | MICROINTERRUTTORE FINE MATERIALE | MICROSWITCH BAR END | ENDSCHALTER STANGENENDE |
| SQ70 | PROSSIMITI PRESENZA PEZZO | MICROSWITCH PIECE PRESENCE | ENDSCHALTER STÜCKANWESENDEHEIT |
| SQ8 | MICROINTERRUTTORE MANIGLIONE (CARICO) | MICROSWITCH HANDLE | ENDSCHALTER GRIFF |
| SQ9 | MICROINTERRUTTORE START MANUALE | MICROSWITCH MANUAL START | ENDSCHALTER MANUELLER START |
| T | TEMPORIZZATORE | TIMER | TIMER |
| 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 VORNE LANGSAM |
| YV10 | ELETTROVALVOLA SBLOCCAGGIO MANUALE | MANUAL UNLOCKING SOLENOID VALVE | ELEKTROVENTIL MANUELLE AUFHEBUNG |
| YV11 | ELETTROVALVOLA DETENSIONAMENTO LAMA | UNTIGHTNING BLADE SOLENOID VALVE | MAGNETVENTILSAEGERBLATT ENTSPANNUNG |
| YV11 | ELETTROVALVOLA DETENSIONAMENTO LAMA | BLADE DETENSIONING SOLENOID VALVE | ELEKTROVENTIL SAEGERBLATT ENTSPANNUNG |
| YV12 | ELETTROVALVOLA TENSIONAMENTO LAMA | TIGHTNING BLADE SOLENOID VALVE | MAGNETVENTIL SAEGERBLATT SPANNUNG |
| YV12 | ELETTROVALVOLA TENSIONAMENTO LAMA | BLADE TENSIONING SOLENOID VALVE | ELEKTROVENTIL SAEGERBLATTSPANNUNG |
| YV15 | ELETTROVALVOLA SOLLEVATORE CARICATORE | LOADER LIFT SOLENOID VALVE | ELEKTROVENTIL HEBWERK LADEMAGAZIN |
| YV16 | ELETTROVALVOLA MORS CARICATORE | LOADER VICE SOLENOID VALVE | ELEKTROVENTIL LADEMAGAZINSPANNSTOCK |
| YV18 | ELETTROVALVOLA GIUDA PEZZO AVANTI | GUIDE-PIECE FORWARD SOLENOID VALVE | ELEKTROVENTIL ZAUN NACH VORNE |

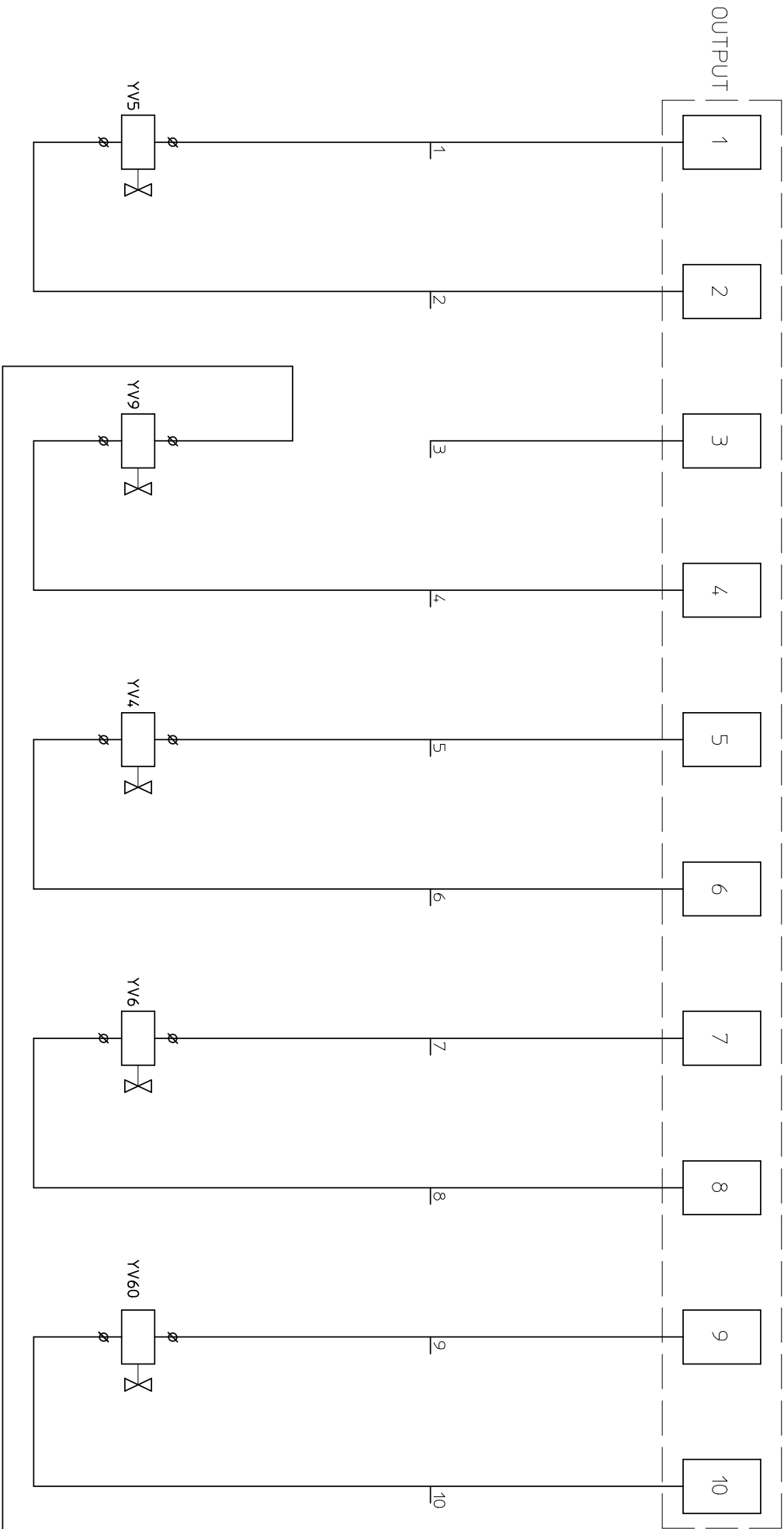


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| YV19 | ELETTROVALVOLA GUIDA PEZZO INDIETRO | GUIDE-PIECE BACKWARD SOLENOID VALVE | ELEKTROVENTIL HINTEREN ZAUN |
| YV2 | ELETTROVALVOLA CARRO INDIETRO LENTO | CARRIAGE SLOW BACK MOTION SOLENOID VALVE | ELEKTROVENTIL WAGEN ZURÜCK LANGSAM |
| YV20 | SBL OCCAGGIO ROTAZIONE | ROTATION UNLOCK | UNSPERRE UMDREHUNG |
| YV3 | ELETTROVALVOLA MORSA MOBILE APRE | OPEN MOVABLE VICE SOLENOID VALVE | ELEKTROVENTIL ÖFFNUNG BEWEGLICHER SPANNSTOCK |
| YV30 | ELETTROVALVOLA MORSA MOBILE CHIUDE | CLOSE MOVABLE VICE SOLENOID VALVE | ELEKTROVENTIL SCHLIEßUNG BEW. SPANNSTOCK |
| YV3P | ELETTROVALVOLA PRESSINO MOBILE APRE | OPEN MOVABLE VERTICAL PRESSING DEVICE SOLENOID VALVE | ELEKTROVENTIL ÖFFNUNG VERTIKALSPANNER |
| YV30P | ELETTROVALVOLA PRESSINO MOBILE CHIUDE | CLOSE MOVABLE VERTICAL PRESSING DEVICE SOLENOID VALVE | ELEKTROVENTIL SCHLIEßUNG VERTIKALSPANNER |
| YV31 | ELETTROVALVOLA RUOTA ARCO LENTO | SLOW BOW ROTATION SOLENOID VALVE | ELEKTROVENTIL SÄGEARMUMDREHUNG LANGSAM |
| YV37 | ELETTROVALVOLA RUOTA DX | ROTATION LEFTWARDS SOLENOID VALVE | ELEKTROVENTIL UMDREHUNG LINKS |
| YV38 | ELETTROVALVOLA RUOTA SX | ROTATION RIGHTWARDS SOLENOID VALVE | ELEKTROVENTIL UMDREHUNG RECHTS |
| YV4 | ELETTROVALVOLA SALITA | UP STROKE SOLENOID VALVE | ELEKTROVENTIL ANSTIEG |
| YV5 | ELETTROVALVOLA DISCESA | DOWN STROKE SOLENOID VALVE | ELEKTROVENTIL ABSTIEG |
| YV50 | ELETTROVALVOLA DISCESA LAMA RAPIDA | QUICK LOWERING SOLENOID VALVE | ELEKTROVENTIL SCHNELLER ABSTIEG |
| YV6 | ELETTROVALVOLA MORSA FISSA APRE | OPEN FIXED VICE SOLENOID VALVE | ELEKTROVENTIL ÖFFNUNG FESTER SPANNSTOCK |
| YV60 | ELETTROVALVOLA MORSA FISSA CHIUDE | CLOSE FIXED VICE SOLENOID VALVE | ELEKTROVENTIL SCHLIEßUNG FESTER SPANNSTOCK |
| YV6P | ELETTROVALVOLA PRESSINO FISSO APRE | OPEN FIXED VERTICAL PRESSING DEVICE SOLENOID VALVE | ELEKTROVENTIL ÖFFNUNG FESTER VERTIKALSPANNER |
| YV60P | ELETTROVALVOLA PRESSINO FISSO CHIUDE | CLOSE FIXED VERTICAL PRESSING DEVICE SOLENOID VALVE | ELEKTROVENTIL SCHLIEßUNG FESTER VERTIKALSPANNER |
| YV61 | ELETTROVALVOLA SPAZZOLA | BRUSH VALVE | ELEKTROVENTIL BÜRSTE |
| YV62 | ELETTROVALVOLA ATTIVAZIONE 2a POMPA OLIO | SECOND OIL PUMP | ELEKTROVENTIL AKTIVIERUNG ZWEITE ÖLPUMPE |
| YV7 | ELETTROVALVOLA CARRO AVANTI | CARRIAGE FORWARD SOLENOID VALVE | ELEKTROVENTIL WAGEN VORNE |
| YV70 | ELETTROVALVOLA SPAZZOLA | BRUSH SOLENOID VALVE | MAGNETVENTIL BÜRSTE |
| YV8 | ELETTROVALVOLA CARRO INDIETRO | CARRIAGE BACK SOLENOID VALVE | ELEKTROVENTIL WAGEN ZURÜCK |
| YV9 | ELETTROVALVOLA BLOCCO | MANUAL LOCKING SOLENOID VALVE | ELEKTROVENTIL BLOCK |
| YV90 | ELETTROVALVOLA MICROLUBRIFICAZIONE | MICROLUBRICATION SOLENOID | ELEKTROVENTIL MIKROSPRÜHEINRICHTUNG |



| Rev. | Modificato | C./Appr. | Data | Descrizione |
|--|------------|----------|------|-------------|
| DENOMINAZIONE: Schema elettrico di potenza | | | | |
| Modello: SEGHETTI | | | | |
| Macchina: SPECIAL 650 DI | | | | |
| Data 02/09/2010 | | | | |
| Firma <i>Franco Luciano</i> | | | | |
| Contr./Appr. | | | | |
| N° Schema / | | | | |
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DENOMINAZIONE: Schema elettrico di comando OUTPUT

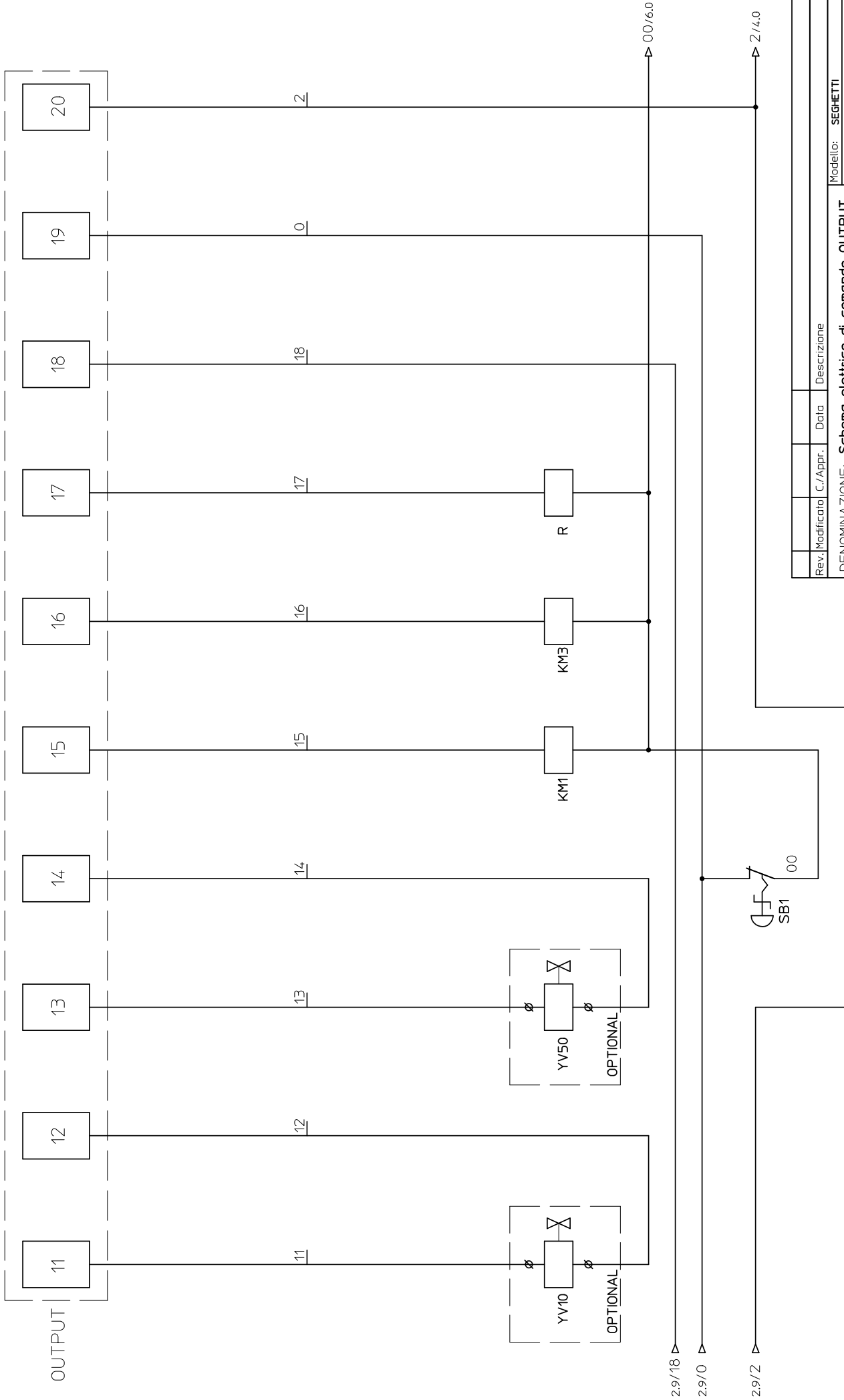
Data 02/09/2010

Firma *Franco Luciano*

Contr./Appr.

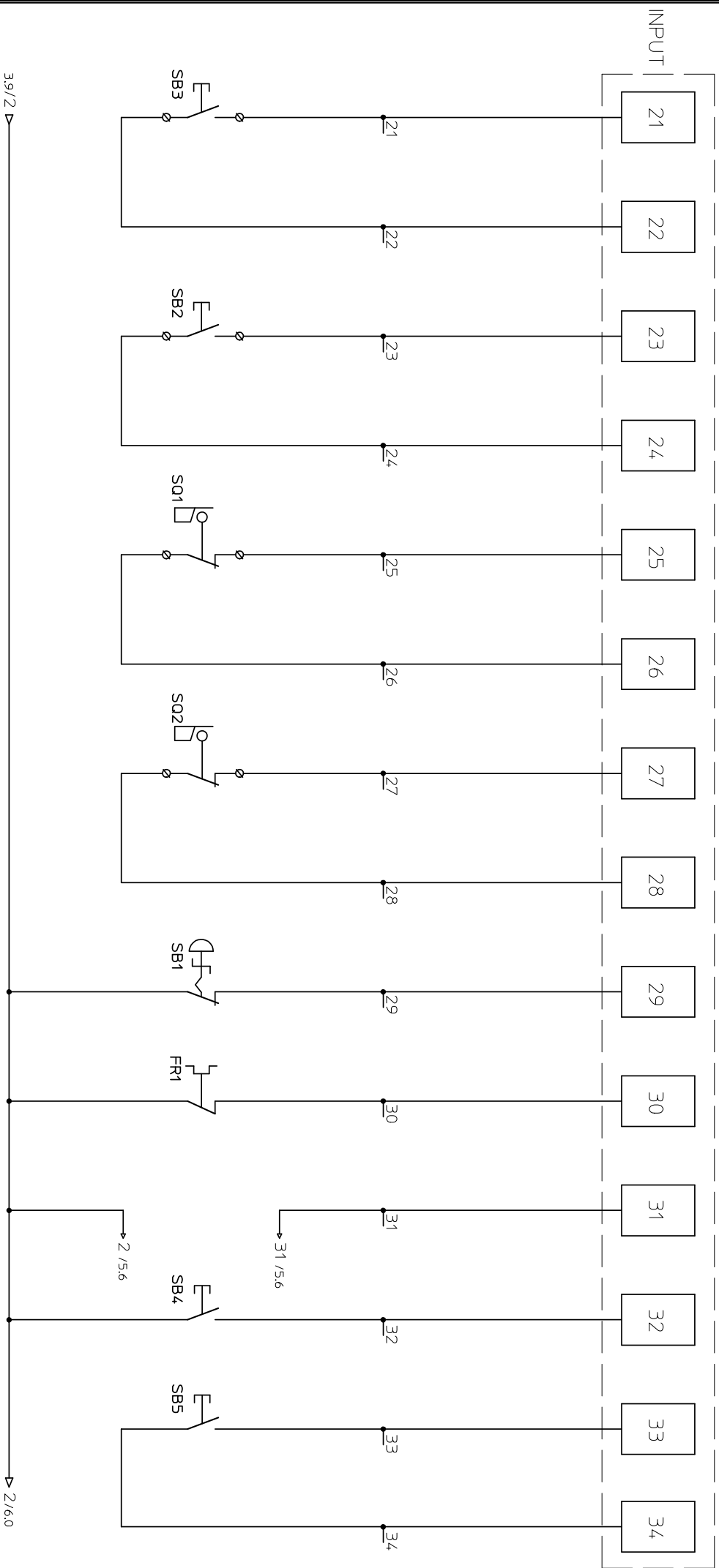


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| N° Schema |
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| Foglio |



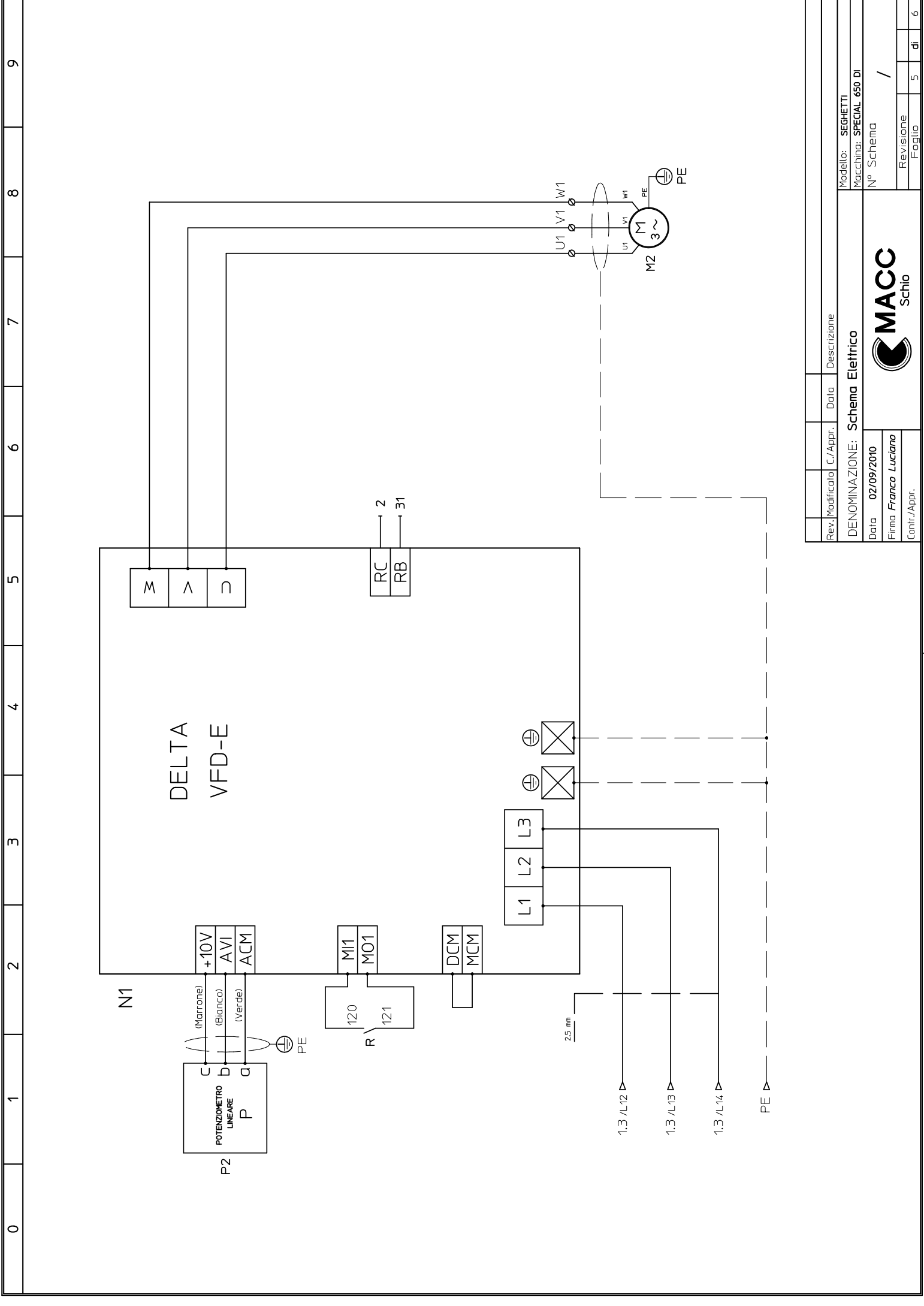
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| Macchina: SPECIAL 650 DI | | | | |
| N° Schema / | | | | |
| Data 02/09/2010 | | | Revisione | |
| Firma Franco Luciano | | | Foglio | 3 |
| Contr./Appr. | | | di | 6 |





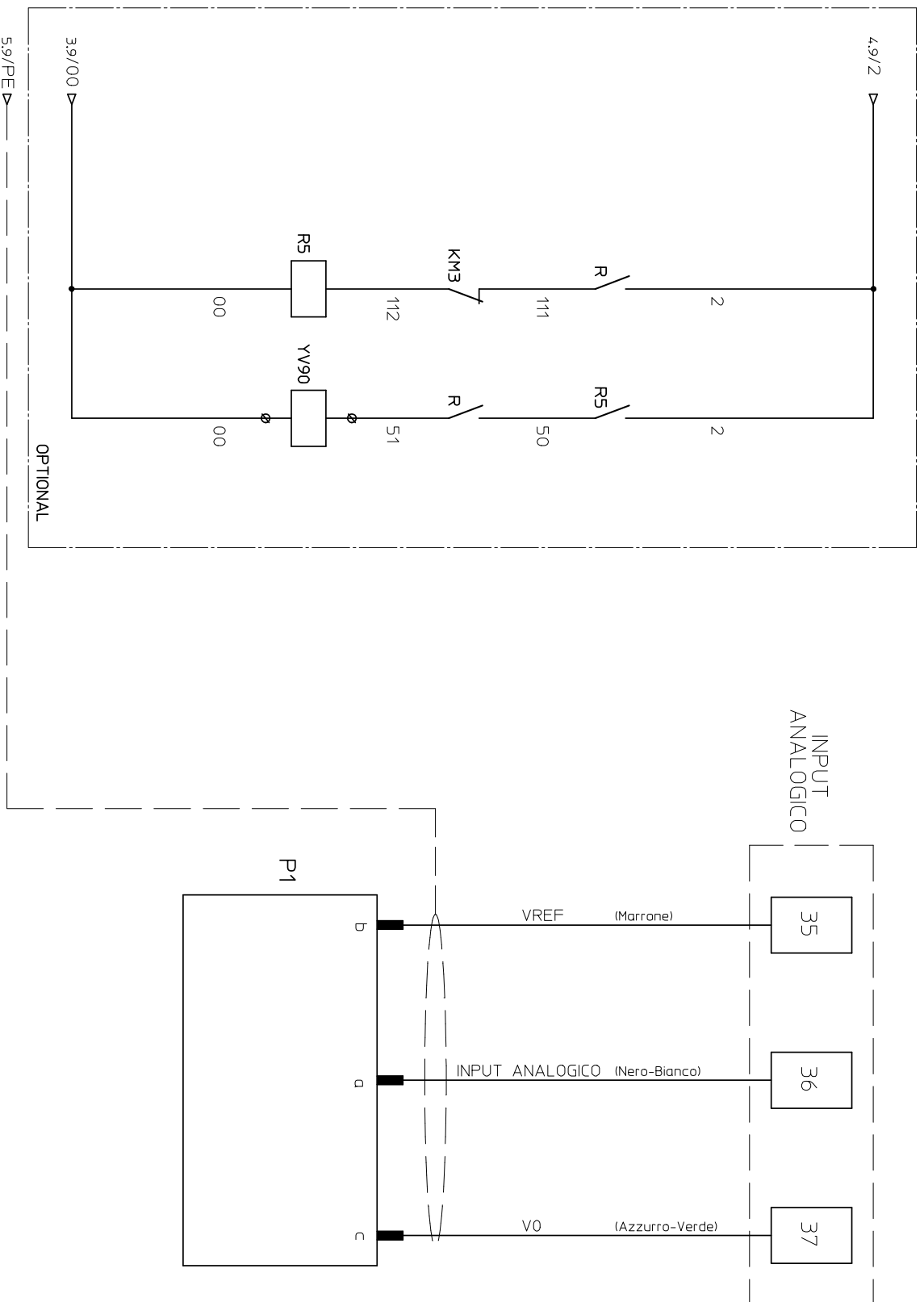
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| Data | 02/09/2010 | Modello: SEGHETTI | | |
| Firma | Franco Luciano | Macchina: SPECIAL 650 DI | | |
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| Rev. | Modificato | C./Appr. | Data | Descrizione |
| DENOMINAZIONE: Schema Elettrico | | | | |
| Modello: SEGNETTI | | | | |
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| Firma <i>Franco Luciano</i> | | | | |
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| DENOMINAZIONE: | | Schema INPUT analogico | | |
| Data | 02/09/2010 | | | |
| Firma | Franco Luciano | | | |
| Contr./Appr. | | | | |
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| Revisione | | | | |
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| CONTROLLATO IL: | 18/10/2018 |
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| REV.: | 01 |