TRONCATRICE A DISCO PER METALLI FERROSI
CUTTING-OFF MACHINE WITH CIRCULAR BLADE FOR FERROUS METALS
METALL-KREISSAEGE
TRONÇONNEUSE A DISQUE POUR METAUX FERREUX
CORTADORA DE DISCO PARA METALES FERROSOS
ДИСКОВЫЙ РАСПИЛОВОЧНЫЙ СТАНОК ДЛЯ ЧЕРНЫХ 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:

NTM 315 - NTS 315

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

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

2022

CE

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

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

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

TRONCATRICE A DISCO PER METALLI FERROSI
CUTTING-OFF MACHINE WITH CIRCULAR BLADE FOR FERROUS METALS
METALL-KREISSAEGE
TRONÇONNEUSE A DISQUE POUR METAUX FERREUX
CORTADORA DE DISCO PARA METALES FERROSOS
ДИСКОВЫЙ РАСПИЛОВОЧНЫЙ СТАНОК ДЛЯ ЧЕРНЫХ МЕТАЛЛОВ

TIPO - TYPE - TYP - TYPE – TIPO - ТИП

NTM 315 - NTS 315

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

—

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

2022

- É CONFORME ALLA DIRETTIVA MACCHINE 2006/42/CE , ALLA DIRETTIVA COMPATIBILITÁ ELETTROMAGNETICA 2014/30/UE ED ALLA DIRETTIVA BASSA TENSIONE 2014/35/CE .

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

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

- EST CONFORME A LA DIRECTIVE MASCHINES 2006/42/CEE, 2014/30/UE DIRECTIVE SUR LA COMPATIBILITÉ ÉLECTROMAGNÉTIQUE , 2014/35/UE DIRECTIVE BASSE TENSION .

- HA SIDO FABRICADA CONFORME A LA DIRECTIVA MÁQUINAS 2006/42/CEE , 2014/30/UE DIRECTIVA COMPATIBILIDAD ELECTROMAGNÉTICA , 2014/35/UE DIRECTIVA BAJA TENSIÓN .

- ОТВЕЧАЕТ ТРЕБОВАНИЯМ ДИРЕКТИВЫ ПО МАШИНАМ 2006/42/CE , ДИРЕКТИВЫ ОБ ЭЛЕМКТРОМАГНИТНОЙ СОВМЕСТИМОСТИ 2014/30/UE И ДИРЕКТИВЫ О НИЗКОМ НАПРЯЖЕНИИ 2014/35/UE .

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, 2022

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

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

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

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

SE PROHÍBE TERMINANTEMENTE UTILIZAR LA MÁQUINA SIN LÍQUIDO DE CORTE.

É SEVERAMENTE PROIBIDO UTILIZAR A MÁQUINA SEM LÍQUIDO DE CORTE.

Категорчески запрещена эксплуатация машины без смазочно-охлаждающей жидкости



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

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

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

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

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

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

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

English



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

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

Français



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

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

Deutsch



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

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

Español



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

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

Nederlands



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

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

Svenska



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

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

Italiano



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

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

Język polski



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

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

Norsk



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

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

Magyarul



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

Ez a szimbólum a készüléken vagy a csomagolásán azt jelzi, hogy a terméket ne kezelje háztartási hulladékként. Kérjük, hogy az elektromos és elektronikai hulladék gyűjtésére kijelölt gyűjtőhelyen adja le. A feleslegessé vált termékének helyes kezelésével segít megelőzni a környezet és az emberi egészség károsodását, mely bekövetkezhetne, ha nem követi a hulladék kezelés helyes módját. Az anyagok, újrahasznosítása segít a természeti erőforrások megőrzésében. A termék újrahasznosítása érdekében további információért forduljon a lakhelyén az illetékesekhez, a helyi hulladékgyűjtő szolgáltatóhoz vagy ahhoz az üzlethez, ahol a terméket megvásárolta.

Česky



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

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

Slovensky



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

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

Türkçe



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

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

Slovensko



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

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

Русский



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

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

Suomi



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

Symboli, joka on merkitty Tuotteeseen tai sen pakkaukseen, osoittaa, että tätä tuotetta ei saa käsitellä talousjätteenä. Tuote on sen sijaan luovutettava sopivaan sähkö-ja elektroniikkalaitteiden kierrätyksestä huolehtivaan keräyspisteeseen. Tämän tuotteen asianmukaisen hävittämisen varmistamisella autetaan estämään sen mahdolliset ympäristöön ja terveyteen kohdistuvat haittavaikutukset, joita voi aiheutua muussa tapauksessa tämän tuotteen epäasianmukaisesta jätekäsittelystä. Materiaalien kierrätys säästää luonnonvaroja. Tarkempia tietoja tämän tuotteen kierrättämisestä saa paikallisesta kunnantoimistosta.

Dansk



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

Hvis dette symbol findes på produktet eller på emballagen betyder det, at det pågældende produkt ikke må bortskaffes som almindeligt husholdningsaffald. Du skal i stedet aflevere det på et indsamlingssted, så det elektriske og elektroniske udstyr kan blive genbrugt. Når du bortskaffer produktet korrekt, hjælper du med at forhindre de mulige negative påvirkninger af miljøet eller sundheden, der kan opstå, hvis produktet bortskaffes på upassende vis. Genbrug af materialer er med at bevare naturens ressourcer. Yderligere oplysninger om genbrug af produktet fås på kommunen, på genbrugscentralen eller i den butik, hvor du købte produktet.

Português



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

Este símbolo, colocado no produto ou na sua embalagem, indica que este não deve ser tratado como resíduo urbano indiferenciado. Deve sim ser colocado num ponto de recolha destinado a resíduos de equipamentos eléctricos e electrónicos. Assegurando-se que este produto é correctamente depositado, irá prevenir potenciais consequências negativas para o ambiente bem como para a saúde, que de outra forma poderiam ocorrer pelo mau manuseamento destes produtos. A reciclagem dos materiais contribuirá para a conservação dos recursos naturais. Para obter informação mais detalhada sobre a reciclagem deste produto, por favor contacte o município onde reside, os serviços de recolha de resíduos da sua área ou a loja onde adquiriu o produto.

Ελληνικά



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

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

1. INTRODUCTION

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

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

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

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

2. INFORMATION ABOUT MAINTENANCE ASSISTANCE

2.1 GUARANTEE

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

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

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

3. INDEX

3.1 INDEX OF CHAPTERS

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

3.2 INDEX OF DRAWINGS , DIAGRAMS AND TABLES

ENCL. TYPE	DESCRIPTION	ENCL No.	CHAP.
Table	**Choice of circular blade**	**1**	**8.3**
Drawings	**Handling and transportation**	**2**	**6/7/8**
Drawings	**Installation plan**	**3**	**6/7/8**
Drawings	**Machine assembly NTM 315**	**5/8**	
Drawings	**Machine assembly NTS 315**	**9/10**	
Drawings	**Electrical details**	**11**	
Diagram	**Pneumatic diagram**	**12**	
Diagram	**Electrical installation NTM 315**		
Diagram	**Electrical installation NTS 315 MACC 8**		

4. DESCRIPTION OF THE MACHINE

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

The machine produced by us is in compliance with :

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

The following Standards apply :

- EN ISO 12100 Safety of machinery - Basic concepts and general principles for design . Basic terminology and methods .
- EN ISO 16093 Safety of machinery . Basic concepts and general principles for design . Specifications and technical principles .
- EN ISO 13850 Safety of machinery . Emergency stop devices , functional aspects - design principles .
- EN ISO 4413-14 Safety requirements related to systems and components for hydraulics and pneumatic transmissions .
- EN 14118 Safety of machinery . Isolation and energy dissipation. Prevention of unexpected start-up .
- EN 14119 Safety of machinery - Interlocking devices with and without guard – locking . General principles and provisions for design .
- EN 60204-1 Safety of machinery . Electrical equipment of machines . Part 1 : General requirements Sa
- EN 13857 Safety of machinery . Safety distances to prevent danger zones being reached by the upper limbs .

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

The following Standards apply :

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

2014/35/UE Low Voltage Directive .

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

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

4.2 DESCRIPTION OF THE MACHINE AND ITS COMPONENTS

The NTM-S 315 circular cutting-off machine for ferrous metals produced by MACC is made from a solid casting , carefully machined and provided with holes for fastening to the platform : the upper surface has been worked using precision machinery to allow the attachment of a sturdy vice with burr-proof jaws .

The bar-stop device allows the length required to be preset and a constant level of performance for repeated cuts .

The blade-holding head made from a cast-iron structure is a reduction unit in oil bath built onto the motor . The coolant pump is installed on a tank which is situated inside the machine platform .

The main switch is situated on the box containing the electrical equipment . Another switch is used to select motor rotation speed and therefore cutting speed . The pannel contains the emergency stop button and two start buttons in the case of the semi-automatic machine . The control lever , fitted with an ergonomic hand-grip and blade activation button with safety release action , reduces fatigue during operation to a minimum . The blade is protected by a guard which in its turn protects the operator from ejected shavings and coolant . The machine is supplied with a set of service spanners .

4.3 INTENDED AND UNSUITABLE USES OF THE MACHINE

The NTM-S 315 cutting-off machine with circular blade has been designed and built to cut bars , structural steel and ferrous metal pipes in accordance with the instructions contained in this manual .

Therefore , the cutting of other materials is not permitted : if the above recommendations are not observed , the machine could be damaged and the health and safety of the operator put at risk .

Cutting is not permitted , if the bar has not been first locked in the vice .

5. MAIN TECHNICAL DATA

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

MOTOR Motor Power Motor revolutions (two speeds)	three-phase three-phase kW 1,3/1,8 1400-2800 (700-1400) rpm
CIRCULAR BLADE (SAW) Maximum diameter and thickness	Number of teeth and feed holes according to table Diameter : 315 mm Thickness : 2,5
BLADE REVOLUTIONS per minute	33-66 (17-34) rpm
CUTTING ANGLE	45° right - 60° left
PIECE LOCKING VICE : MAX OPENING	160 mm
COOLANT TANK CAPACITY	litres 5
MACHINE WEIGHT	NTM315 270 kg (2640 N) - NTS315 300 kg (2940 N)

6. HANDLING AND TRANSPORTATION

For safe handling and transportation use a lift truck for movement indoors or a bridge crane ; in this case , also using cables fastened to the sling positions indicated on the Attachment 2 . Keep the machine in its normal position and avoid turning it upside down . **If the machine is fastened to the pedestal , stability will be greatly reduced and therefore all the necessary measures should be taken to stop the machine from tipping over .**

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

7. MACHINE INSTALLATION

A. MACHINE CHECK AND CONTROL LEVER ASSEMBLY

The machine should be checked to make sure that it has not been damaged during transportation and handling .

Control lever assembly (Attachment 6-11) : Fit the supplied head lever 42 , into position of pins . To fit the handle , connect the electric cable terminals 220 to the microswitch 218 and place it in the left second half of the handle as shown in draw . Attachment 6-11 . Then insert the lever 42 . Complete the assembly using the screws 221 and then 219 . Make sure that the cable is inserted into the lever slot , after having checked that there are no burrs or sharp edges in the slot .

B. FASTENING OF THE MACHINE

The machine will be able to operate in keeping with the technical parameters supplied by MACC if it is positioned correctly and fastened securely to the bench or the factory floor so that vibrations are minimal during operation . Consult NTM-S 315 Installation plan Attachment 3 .

C. ASSEMBLY OF CIRCULAR BLADE

1-Remove guard 121 exposing saw shaft and saw collars .
2-Remove screw 114 and autside flange 112 .
3-Loosen screw on pinchip wheel bracket and slide pinchip wheel out of the way .
4-Mount the saw blade on the arbor with teeth of blade moving counterclockwise .
5-Move pinchip wheel into the saw blade , meshing the pins and teeth loosely . Rotate the blade by hand to ensure proper mesh with pinchip wheel . The pins should not protrude thru the saw blade more than 1/16” .
6-Replace outside flange 112 and screw 114 . Turn blade clockwise up against drive pins and securely tighten bolt .
7-Replace guard 121 .
(Points 3 and 5 should only be followed for machines with scrap-breaker) .

D. ELECTRICAL CONNECTION TO THE MAINS

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

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

E. CUTTING COOLANT

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

8. MACHINE START UP AND OPERATION

8.1 DEVICES AND THEIR LOCATION

(The location of the devices described is shown on the NTM-S 315 installation plan Attachment 3)

Code	213	LOCKABLE MAIN SWITCH
Code	218	START-STOP MICROSWITCH : situated inside the handle located at the end of the control lever and has safety release action .
Code	207	EMERGENCY STOP
Code	13	LOCKING VICE
Code	78	BAR-STOP
Code	42	CONTROL LEVER WITH HANDLE

8.2 TOOLS SUPPLIED

1 Allen wrench size 3
1 Allen wrench size 4
1 Allen wrench size 5
1 Allen wrench size 6
1 Allen wrench size 8
1 Allen wrench size 14

8.3 OPERATION

CHECKS TO CARRY OUT BEFORE EACH CUT

A. Make sure that the circular blade is fastened securely by means of screw 114 (Attachment 7-10)
B. Check that the hand indicates the required cutting angle .
C. Make sure that the piece to be cut is adequately secured in the vice .
D. Make sure that the coolant is circulating in the machine .
E. Adjust the head stops so that the idle stroke is not too long .
F. Position the clamp vice by operating on the screws , so that it is the nearest possible to the blade .

CUTTING OPERATION

A. Before starting to cut , if the tilting of the cut is not satisfactory , adjust this by raising the working head to maximum up position , loosening the fastening handle 82 and turning the rotating plate 51 to the required position and then fastening the plate with the same handle .
B. Clamp the piece to be cut by means of the handwheel 77 (Attachment 5-9) , turn the main switch 213 the speed switch 208 to the position required (we recommend No.1) , take hold of the handle 37 located at the end of the head lever and press button 222 . The blade will now start turning .
C. Position the blade carefully on the piece to be cut . Then increase the pressure in order to accelerate the cutting operation without using excessive force . To make a series of cuts , position the bar-stop 78 at the size required . Fix it into position by using the knob .
D. To replace the circular blade carry out the same operations used to assemble the circular blade . (chapter 7c) .
E. For the choice of most suitable blade consult the table Attachment 1 .
F. Every time the machine is switched on , when it switches off or if the emergency push-button 207 has been pressed , set the machine to the starting position and press the RESET button to start the cycle again (in the third case , release the emergency button first) .
We strongly discourage the use of blades with ruined or insufficiently sharp cutting edges

SERVICE CYCLES OF THE MACHINE IN SEMI-AUTOMATIC CYCLE

Connect the machine to the central pneumatic system and position the manometer on 6-7 atm . Position the vice at 4 mm from the part . Adjust the head stops so that the idle stroke is not too long . Set the lowering of the head by making it perform an idle cycle . Place the part to be cut to the set size , rotate the motor head commutator in the wanted position then press the START push-button .

8.4 SPECIAL SAFETY CHECKS

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

8.5 GENERAL SAFETY RULES

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

8.6 MEASURES TO PREVENT RESIDUAL RISKS

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

B. Gloves should always be worn .

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

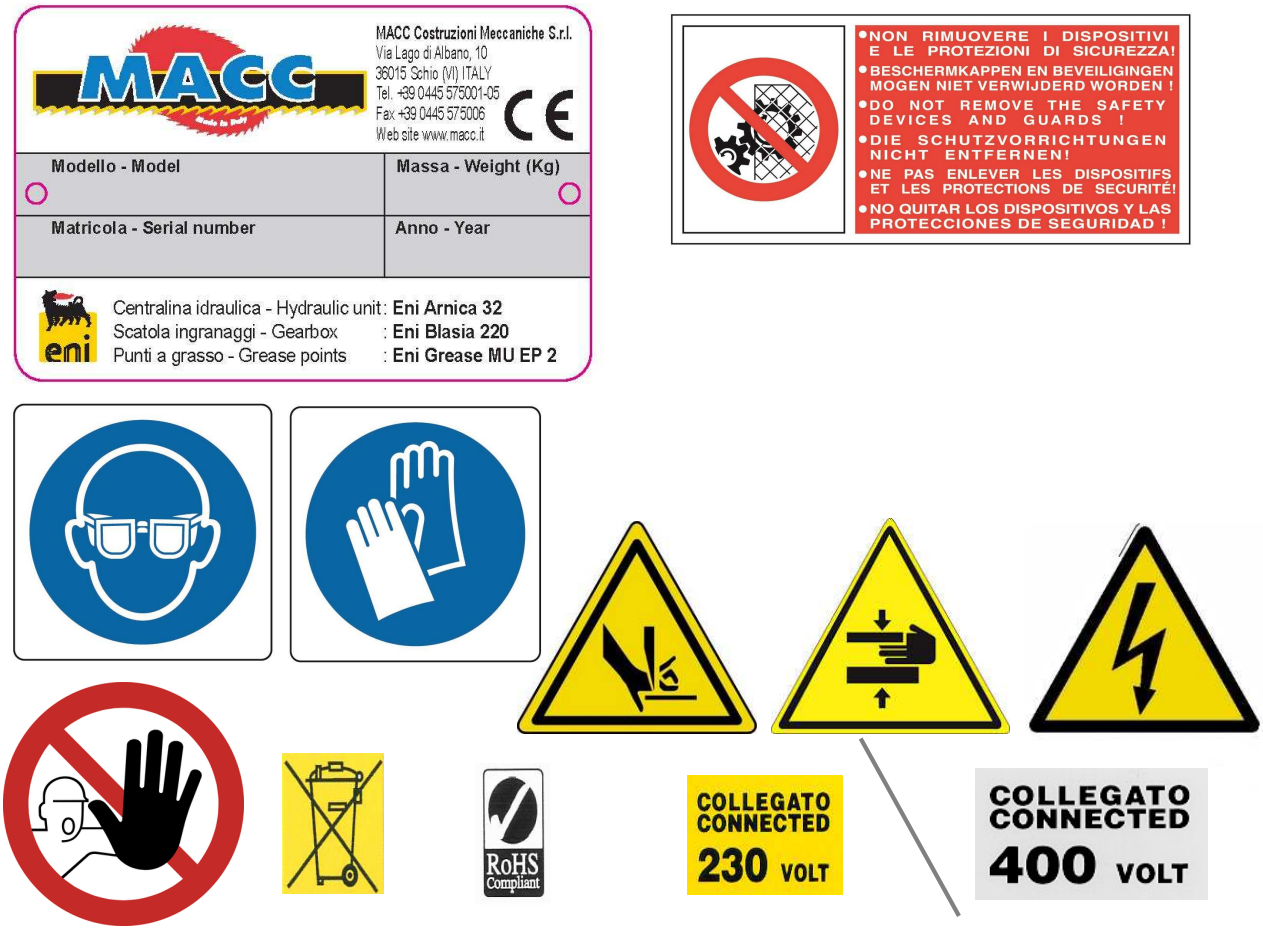
D. The machine should not be cleaned with liquids under pressure .

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

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

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

Safety , Guidance , Notice Labels on the Machine



9. MAINTENANCE AND REPAIRS

9.1 GENERAL SAFETY MEASURES

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

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

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

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

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

9.2 ROUTINE CHECKS AND MAINTENANCE

FREQUENCY (working hours)	OPERATION
1000 hours	Replace the oil in the gear box with ENI BLASIA 220 oil (2.5 litres) or equivalent .
1000	Lubrication of the mobile parts of the piece clamping vice and the head sliding surfaces . (GREASE ENI MU 2)
50	Cleaning of coolant tank and control of the emulsion level .
if necessary	Adjust the head and vice gib .

9.3 DESCRIPTION OF ROUTINE MAINTENANCE

A. Replacement of gear box oil

Remove caps 15 and 30 (Attachment 7-10) , let all the used oil flow out into a container which should have a label indicating the contents for the purposes of disposal . Replace cap 15. Feed 2,5 litres of oil (as specified above) into the oil feed hole located on the upper part of the gear box and then replace cap 30 .

B. Lubrication of the mobile parts of the piece clamping vice and the head sliding surfaces .

Remove jaw 133 (Attachment 5-9) , withdraw vice 13 completely by turning hand wheel 77 . Clean and grease the parts worked by the vice support 9 and vice 13 . Put a drop of oil in the oil feed hole 11 located behind the handwheel .

C. Cleaning of coolant tank and the swarf collection tray .

Empty the swarf collection tray and the coolant tank and keep the waste materials for future disposal . Clean out the shavings and the metallic powder , taking care not to scatter this over the machine especially around the motor and the box containing the electrical equipment . Fill the tank with the amount and liquid stated previously (5 litres) .

D. Adjust the head and vice gib .

Adjust the head gib by means of the special screws and nuts every 2-3 months . In case of play or difficult sliding of vice guides , loosen nut 56 and adjust dowel 72 . Refasten nut 56 .

10.INFORMATION REGARDING ENVIRONMENTAL NOISE

An environmental noise test carried out on the NTM-S 315 cutting-off machine with circular blade , identical to the machine to which these operation instructions refer , has given the following results :

ACOUSTIC RADIATION PRESSURE

1. L_{Aeq} = 73.1 dB (A)
2. L_{peak} = 92 dB (the maximum acceptable value is 140 dB) .
3. The level of background noise has no influence = 48.5-54.2 dB (A) .

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

11. LAYING OFF AND DISMANTLING

11.1 LAYING OFF

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

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

11.2 DISMANTLING

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

Steel	Electrical Components	Light alloy	Cast iron	Bronze Copper	Plastic and rubber	Various
Flanges and pins	Motors winding	Gear boxes	Structural parts	Bushings	Seals	
Rollers	Push button and Control system (relais – transformer)	Cylinders			Electrical box	
Spring						

Used oil and materials must be disposed of according to 87/101/EEC Directives and to country specific regulations .
The disposal of electrical components is provided for by European Directives UE 2015/863 .

12. LIST OF SPARE PARTS

Pos	Description	Code	Q.ty
1			
2	Disk		1
3	Bearing 6004 A	050/14	1
4	Worm screw shaft	013/14	1
5	HSHC screw M8x20 DIN-912		
6	Vice supporting dowel	044/14	1
7	Hexagon socket grub srew M8x10 ISO-913 (M)		1
8	HSHC screw M8x35 DIN-912		2
9	Vice support	008/14	1
10	HSHC screw M8x30 DIN-912 + Washer		4+4
11	Oiler ø6 (M)		1
12	Vice screw (M) Vice screw (S)	102/14 047/26	1 1
13	Vice	005/14	1
14	Cylinder gas spacer (M)	100-A/15	1
15	Oil drain cap ø3/8"		1
16	Bearing 3305	076/14	1
17	HSHC screw M8x20 DIN-912		
18	Hexagon socket grub screw M6x10 DIN-914		1
19	Bearing support flange	016/14	1
20	Motor gear	012/14	1
21	Worm screw shaft gear	014/14	1
22	Key 8x7x25 UNI-6204		2
23			
24	Washer for M8 DIN-125/A		7
25	HH screw M8x25 DIN-933 (M)		4
26	Vice lever (M)	007/31	1
27	Self locking ring-nut GUK M25		2
28	Rack (M)	023/14	1
29	Disk guard	092/14	1
30	Oil filler cap ø3/8"		1
31	Grease nipple M6		2
32	Hexagon socket grub screw M8x45 DIN-914		3
33	Hexagon lock nut M8 DIN-936		3
34	Head gib	034/14	1
35	Hexagon lock nut M10 DIN-934		1
36	Cover return spring lever (M)	033/14	1
37	Head lever handle (M)	146/05	1
38	Motor	080/80	1
39	Feather 6x6x20 UNI 6604 A (M)		2
40	Column	004/14	1
41	Hexagon lock nut M12 DIN-936 (M)		1
42	Head lever (M)	031/14	1
43	Pinion pin	025/14	1
44	Spacers	096/14 + 096-A/14	1+1
45	Pin head motion	024/14	1
46	Medium nut M8 DIN-934 (M)		6
47	Hexagon lock nut M16 DIN-936		1
48	Column guard	037/14	1
49	Washer for M6 DIN-125/A		
50	HSHC screw M6x10 DIN-912		4
51	Rotating plate	003/14	1
52	Bench	002/14	1
53	Chip breaker guard	094/14	1
54	Positioning pin knob + ball ø30 FM10	082/14	1
55	Positioning pin	050/15	1

56	Exagon lock nut M8 DIN-936		4
57	Base	183/14	1
58	HSHC screw M6x16 DIN-912		
59	HSHC screw M10x30 DIN-912		2
60	Lifting eye nut M16 (M)		1
61	Hexagon socket grub screw M6x20 DIN-913		1
62	HSHC screw M10x90 DIN-912		2
63	Low hexagonal nut M6 DIN-936		3
64	Counter vice	009/14	1
65	Motor gasket	026/15	1
66	Head gasket	073/14	1
67	HSHC screw M10x30 + M10x40 DIN-912		2+2
68	Motor pump EZ/C	090/90	1
69	HSHC screw M6x16 DIN-912		2
70	HSHC screw M5x8 DIN-912		3
71	Rotating plate washer	020/14	3
72	Hexagon soc.grub M8x30 DIN-914		4
73	Vice gib	043/14	1
74	Vice spring	021/31	1
75	HSHC screw M8x30 DIN-912		2
76	Hexagon socket grub screw M6x10 DIN-914		1
77	Vice handwheel (M) Vice handwheel (S)	029/03 072/36	1 1
78	Bar stop	053/14	1
79	Cap	058/14	1
80	Bar stopping rod	031/05	1
81	Mobile bar stopping rod	052/14	1
82	Release lever M10x45	037/32	1
83	Handwheel ø40 M8x25	077/25	2
84	HSHC screw M8x20 DIN-912		6
85	Bearing 30206 A	077/14	2
86	Shaft gear spacer	022/14	1
87	Helical gear	019/14	1
88	Check valve EUROPA ø3/8"	035/96	1
89	Pin anchoring lever (M)	029/14	4
90	Hub anchoring lever	036/14	1
91	Oil level cap ø3/8"		1
92	Bracket anchoring lever	030/14	1
93	Snap ring ø15 E DIN-471		1
94	Spring return lever	032/14	1
95	Cylinder gas (M) 4/2P (55 Kg) Cylinder gas (M) 8/4P (65 Kg for Low revs motor)	017/14 017-A/14	1 1
96	Washer for M5 DIN-125-A		3
97	HSHC screw M8x70 DIN-912		1
98	HSFHC screw M8x20 + M8x25 DIN-7991		1+1
99	HH screw M8x25 DIN-933		1
100			
101	Head stopping bar (M)	072/14	1
102	Braket anchoring cylinder (M)	089/14	1
103	Head stopping bush (M)	070/14	1
104	HH screw M8x35 DIN-933 (M)		1
105	Head stopping bracket (M)	071/14	1
106	HH screw M8x20 DIN-933		4
107	Roller	049/04	1
108	HH screw M10x55 DIN-933		1
109	Roller arm	047/04	1
110	Key 8x7x25 UNI-6204		1
111	Knurled pin ø9x20	055-B/20	2

112	Disk fastening flange	075/14	1
113	Oil retainer 40-62-10	078/14	1
114	Disk fastening screw	029/25	1
115	Disk shaft	018/14	1
116	Stud holder	081/11	1
117	Chip breaker pin	061/14	1
118	HSHC screw M6x12 DIN-912		1
119	Chip braker wheel	051/24	1
120	Snap ring ø16 E DIN-471		1
121	Disk guard cover	048/14	1
122	Rod holder	021/16	2
123	Tap	030/96	1
124	Jet- breaker	097/14	1
125	Washer for M8 DIN-125/A		7
126	Mobile guard	092-A/14 + 092-B/14	1+1
127	Self-locking nut M6 DIN-982		3
128	Hexagon socket grub screw M6x30 DIN-913		3
129	Disk guard washer	051/14	3
130	Head	010/14	1
131	Head cover	011/14	1
132	Chip breaker braket	049/24	1
133	Vice jaw	039/14	1
134	Side head cover	074/14	1
135	Ring OR 4287	081/14	1
136	Vice cylinder (S)	061/16	1
137	Head cylinder (S)	062/16	1
138	Washer for M8 DIN-125/A (S)		4
139	HH screw M8x35 DIN-933		3
140	Head cylinder support (S)	063-A/16	1
141	Bush (M)	101/14	1
142	Bearing vice flange (M)	020/31	1
143	Head stop (S)	059/32	2
144	Head stopping bar (S)	072/16	1
145	Microswitch (S)	024/90	2
146	Handwheel ø40 M8x25 (S)	077/25	2
147	HSHC screw M6x50 DIN-912 (S)		2
148	Hexag. Soc.grub screw M8x30 DIN-913		1
149	HSHC screw M4x30 DIN-912 + Nut + Washer		1+1+2
150	Low hexagonal nut M10 DIN-936		1
151	Self locking nut M8 DIN-982		1
152	Thrust bearing AS 3047	061/31	2
153	Casing AXK 3047	060/31	1
154	Washer	053/31	1
155	Roller arm pin (S)	057/14	1
156	Hexag. soc. grub. screw M6x10 DIN-914		1
157	Mobile burr-proof bracket	064/26	1
158	Fixed burr-proof bracket	068/14	1
159	HH screw M10x30 DIN-933		1
160	Washer for M10 UNI-6593		2
161	Ball ø45 M14	098/15	1
162	Cylinder attachment plate (S)	079/14	1
163	Low hexagonal nut M20x1,5 DIN-936 (S)		1
164	HSHC screw M8x60 DIN-912		4
165	HSHC screw M6x16 DIN-912		3
166	Hexag. Soc.grub screw M6x8 DIN-913		1
167	HH screw M6x16 DIN-933		2
168	Head rotating lever	049/15	1
169	Cylinder coupling (S)	069/14	1

170	HH screw M10x35 DIN-933		1
171	Microswitch (S)	030/90	1
172	HSHC screw M4x10 DIN-912 + Nut + Washer (S)		2+2+2
173	HSFHC screw M6x20 DIN-7991		4
174	Grease nipple M8		1
175	HSFHC screw M8x30 DIN-7991		1
176	HSFHC screw M8x20 DIN-7991		2
177	Chip tank	084/14	1
178	Electric pump tank	085/14	1
179	Box bracket support	026/16	1
180	Box controller (S)	099/14	1
181	Filter unit (S)	070/90	1
182	Solenoid valve unit NTS400/2 (S)	073/90	1
183	Solenoid valve kit (S)	072-A/90	1
184	Servo-valve (S)	079/11	1
185			
186	Sheath press Pg36 + Ring-nut	181/90	1+1

199	Box cover (M) Box cover (S)	025/16 025-A/16	1 1
200	Box (M) Box (S)	024/16 024-A/16	1 1
201	Plate (M) Plate (S)	030/16 030-A/16	1 1
202	Omega raceway		2
203	Switch A1203/R03 (M)	006/90	1
204	TBEI screw M4x14 DIN-7380		10
205	HSHC screw M4x6 DIN-912		2
206	Contactor with auxiliary contact (S)	200/90	1
207	Emergency button	085/90	1
208	Switch A1209/R03	018/90	1
209	TBEI screw M4x6 ISO-7380	280/95	4
210	Remote controlled switch	032/90	1
211	Frontal (M) Frontal (S)	105/14 110/34	1 1
212	Thermical relais CGE	053/90	1
213	Switch VEMER CA0120003207 + G595	002/90 065/90	1 1
214	Fuse block PCH3x38	092/90	
215	Fuse block PCH 2x38	094/90	
216	Fuse block PCH 1x38	093/90	
217	Transformer 30 VA (M) Resinated Transformer 100 VA (S)	045/90 044-A/90	
218	Micro-switch	328/90	
219	HSFHC screw M4x8 DIN-7991 (M)	255/95	
220	Electrical cable 2x1 (M)	003/77	
221	TCCC screw M2,9x13 DIN-7981 (M)	294/95	
222			
223			
224	Green lamp 24V (M)		
225	White lamp 24V (M)		
226			
227	Fuse gG 10x38 1A	202/90	
228	Fuse gG 10x38 2A (M)	203/90	
229	Fuse aM 10x38 10A	206/90	
230	Fuse aM 10x38 4A (S)	204/90	
231	Fuse aM 10x38 6A (S)	205/90	
232	Earth connection bar	050/90	
233	Terminal COBUR CBD.2	222/90	
234	Earth terminals COBUR TE.6/0 (G/V Terra)	223/90	
	Parts not visible on exploded view:		
	Zerk syringe (S)	060/16	

Contents

The instructions contained in this manual should be followed scrupulously.
In case of doubt contact the manufacturer:

1. CONTENTS **Page 1**
2. FRONT PANEL **Page 2**
3. CONNECTIONS **Page 2**
4. SOFTWARE OPERATION **Page 4**
MACHINE START-UP AND RESET **Page 4**
SEMIAUTOMATIC CUTTING CYCLE **Page 4**
FAST BLADE DOWNSTROKE **Page 4**
MANUAL CUTTING CYCLE **Page 4**
LIST OF EMERGENCIES **Page 4**

ELCO ELETTRONICA
Via della Costituzione, 50
42015 Correggio - (R.E.)
ITALIA

PRODUCT CONFIGURATION

SOFTWARE INSTALLED ECPICAA0 version 2107

HARDWARE CONFIGURATION:

7 digital inputs 24V ac (5 for emergency signals)

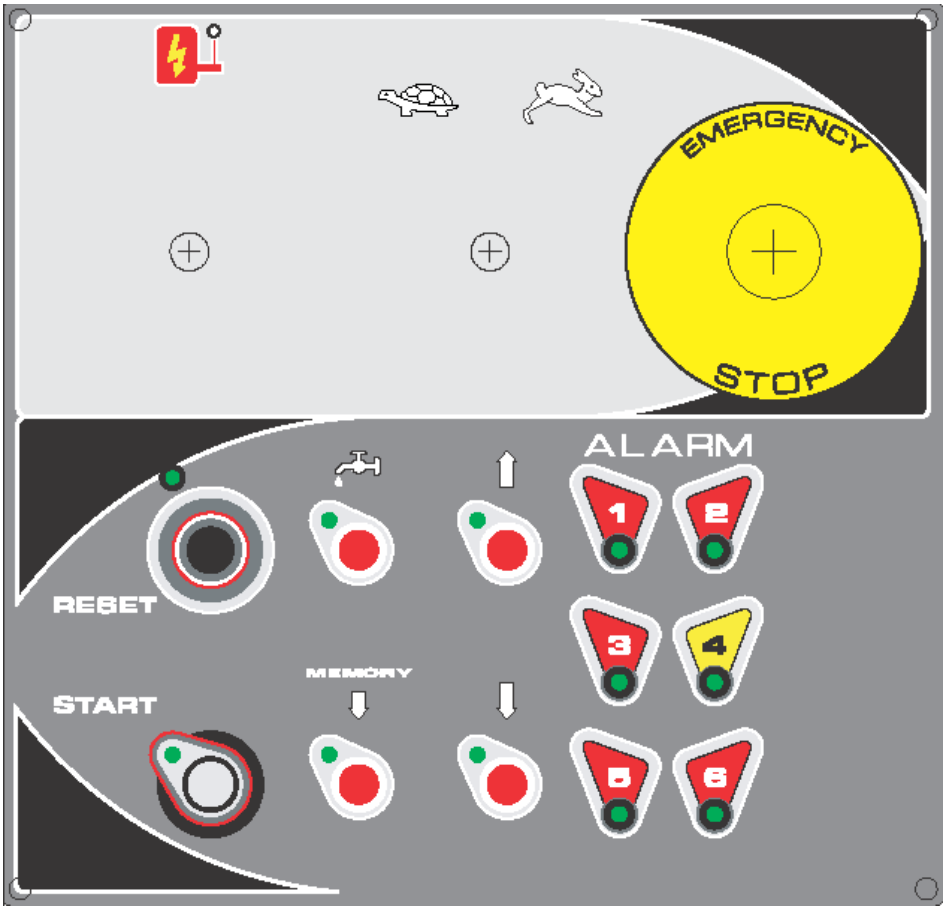
10 outputs with free contact

The product is provided with a front panel having degree of protection IP65

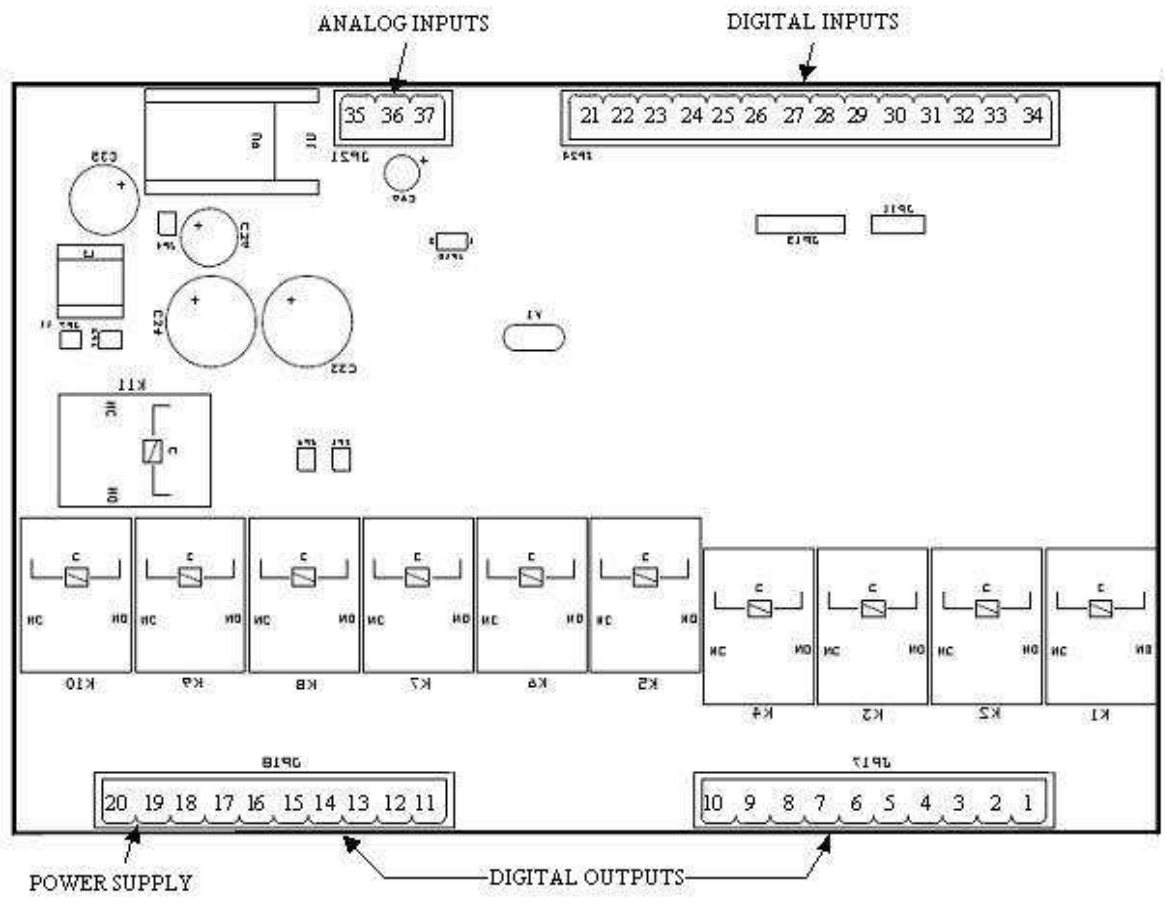
Front panel

The Emacc800 board is provided with a front plate having:

- a keyboard with 6 keys and 12 leds



Connections



1. Power supply

Pole No	*Name*	*Function*
19	NEUTRAL	Neutral 24Vac
20	PHASE	Phase 24Vac

2. Digital inputs

Pole No	*Description*
21	Blade-high limit switch
22	PHASE, Blade-high limit switch
23	Blade-low limit switch
24	PHASE, Blade-low limit switch
25	Blade breakage emergency
26	PHASE, Blade breakage emergency
27	Guard-open emergency
28	PHASE, Guard-open emergency
29	Emergency button
30	Thermal protection1
31	Thermal protection 2
32	Manual release handle
33	Phase Pedal
34	Pedal

3. Digital outputs

Pole No	*Description*
1	Blade downstroke solenoid valve
2	COMMON, Blade downstroke solenoid valve
3	
4	COMMON, Blade downstroke solenoid valve
5	Blade upstroke solenoid valve
6	COMMON, Blade upstroke solenoid valve
7	Vice opening solenoid valve
8	COMMON, Vice opening solenoid valve
9	Vice closing solenoid valve
10	COMMON, Vice closing solenoid valve
11	Manual lock solenoid valve
12	COMMON, Manual lock solenoid valve
13	Fast blade downstroke solenoid valve
14	COMMON, Fast blade downstroke solenoid valve
15	Oil pump remote control switch
16	Coolant remote control switch
17	Blade motor remote control switch
18	Solenoid check valve
19	OUTPUT NEUTRAL / COMMON
20	PHASE

4. Analog inputs

Pole No	*Description*
35	Positive potentiometer power supply
36	Potentiometer input
37	Negative potentiometer power supply

Software operation

MACHINE START-UP AND RESET

On switching on, press the "RESET" button to position the machine - the blade moves all the way up to the limit switch. At this point, the START led starts to blink.

SEMIAUTOMATIC CUTTING CYCLE

After carrying out machine reset, the control makes the start led blink – this only takes place if the bow is already found at its limit switch.
If the machine is not in this condition, the start key led is switched off, and the reset key must be pressed again to move the machine to its working position.
During machine operation, the coolant key led is switched on or off depending on the coolant reservation.

Cycle execution

1. OIL PUMP ACTIVATION (IF NON ALREADY ACTIVE) WITH THE RESET KEY
2. PRESS THE START KEY
3. BLADE MOTOR ACTIVATION
4. VICE CLOSING
5. COOLANT ACTIVATION (IF RESERVED)

6. BLADE DOWNSTROKE AS FAR AS THE LIMIT SWITCH
7. BLADE UPSTROKE AS FAR AS THE LIMIT SWITCH
8. BLADE ROTATION STOP
9. VICE OPENING
10. COOLANT STOP

FAST BLADE DOWNSTROKE (OPTIONAL)

The fast blade downstroke function is activated using the "arrow down" key below the coolant key – the bow will lower faster.

MANUAL CUTTING CYCLE (OPTIONAL)

After the handle is pressed, the machine can be used in manual mode.
In this mode, it is also possible to reserve coolant control.
In this environment, if the coolant key is kept pressed for 3 seconds, the machine washing function is enabled.
Return to the semiautomatic cycle by means of the reset key.

LIST OF EMERGENCIES

Each type of emergency corresponds to one of the 6 red leds present on the panel:

1. BLADE BROKEN (LED 1 + LED 3)
2. GUARD OPEN (LED 2 + LED 3)
3. BLADE-HIGH AND BLADE-LOW LIMIT SWITCHES PRESSED SIMULTANEOUSLY (LED 3)
4. EMERGENCY BUTTON PRESSED (LED 4 + LED 3)
5. THERMAL PROTECTION 1 (LED 5 + LED 3)
6. THERMAL PROTECTION 2 (LED 6 + LED 3)

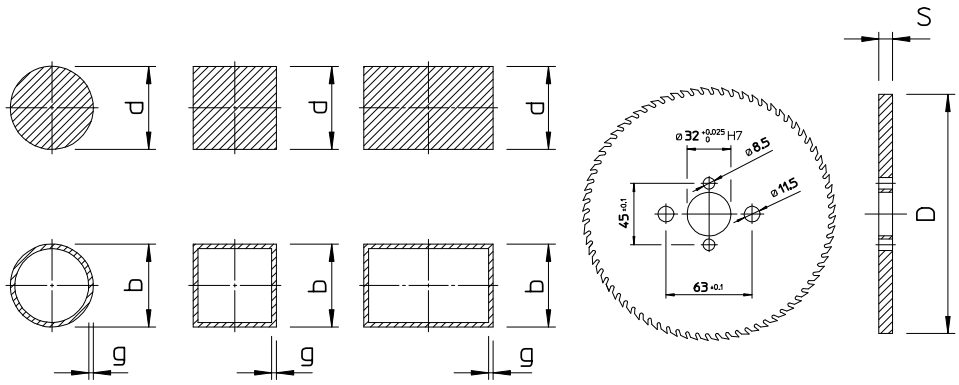
When an emergency is triggered, the corresponding led is activated and all the outputs are deactivated.
The led remains fixed as long as the emergency remains enabled.
When the emergency control is reset, the emergency led is switched off, and the reset key must be pressed.

CAPACITA' DI TAGLIO - CUTTING CAPACITY - NTM 315

CAPACITA' DI TAGLIO - CUTTING CAPACITY - CAPACITE DE COUPE SCHNITTKAPAZITAET - CAPACIDAD DE CORTE	●	○	□	▬
90°	70	100	90 x 90	135 x 80
45° Sinistra - left - links - gauche	70	100	90 x 90	100 x 80
45° Destra - right - droite - rechts	70	100	90 x 90	100 x 80
60° Destra - right - droite - rechts	70	80	70 x 70	70 x 80

SCELTA DEL DISCO - BLADE SELECTION

Diametro - Diameter Diametre - Durchmesser		200	225	250	275	300	315	350
Spessore - Thickness Epaisseur - Dicke		1.8	1.8	2	2.5	2.5	2.5	3
b=10-80 g=<2	t	3	3	3	3	3	3	3
	z	200	230	250	280	300	320	350
b=10-80 g=2-4 d=10-18	t	5	5	5	5	5	5	5
	z	130	140	160	170	190	200	220
b=20-80 g=4-10 d=18-30	t	8	8	8	8	8	8	8
	z	80	90	100	110	120	120	140
d=30-40	t	10	10	10	10	10	10	10
	z	60	70	80	90	90	100	110
d>40	t	/	/	/	12	12	12	12
	z	/	/	/	70	80	80	90



Si garantisce il funzionamento ottimale della vite-corona utilizzando dischi con fori di trascinamento.

Best performance of worm screw worm wheel gearing is guaranteed when circular saw blades with drawing-holes are used.

Nous garantissons le bon fonctionnement de la vis et couronne seulement si l'on emploie des fraise-scies avec trous d'entrainement.

Die verwendung von Sageblattern mit Mitnehmerlochern sichern den guten Betrieb der Schnecke und des Scheckenkranzes.

b= diametro esterno/altezza (tubi) - outside diameter/height (pipe)
diametre extérieur/hauteur

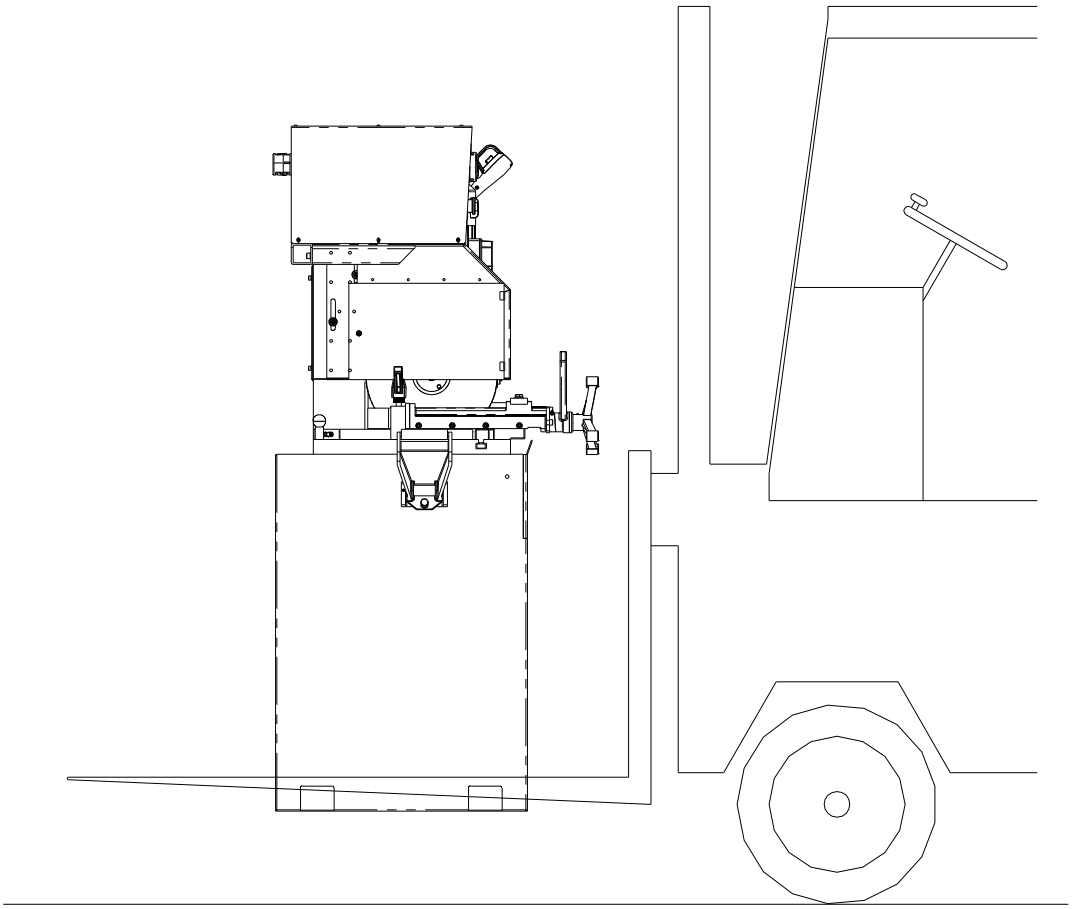
d= diametro/altezza (pieni) - diameter/height (solid)
diamètre/hauter (plein) - durchmesser/hohe (voll)

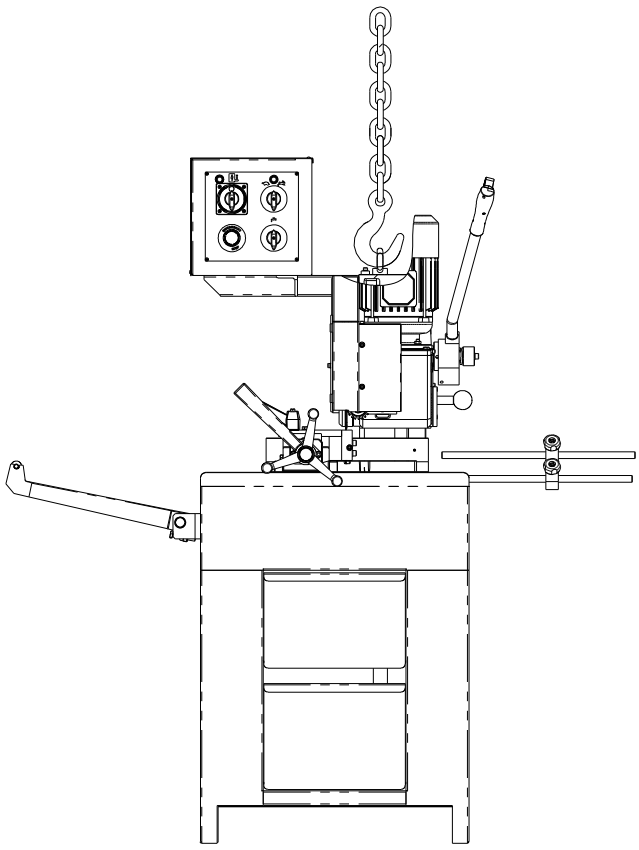
g= spessore del tubo - pipe thickness
epaisseur du tube - rohrdicke

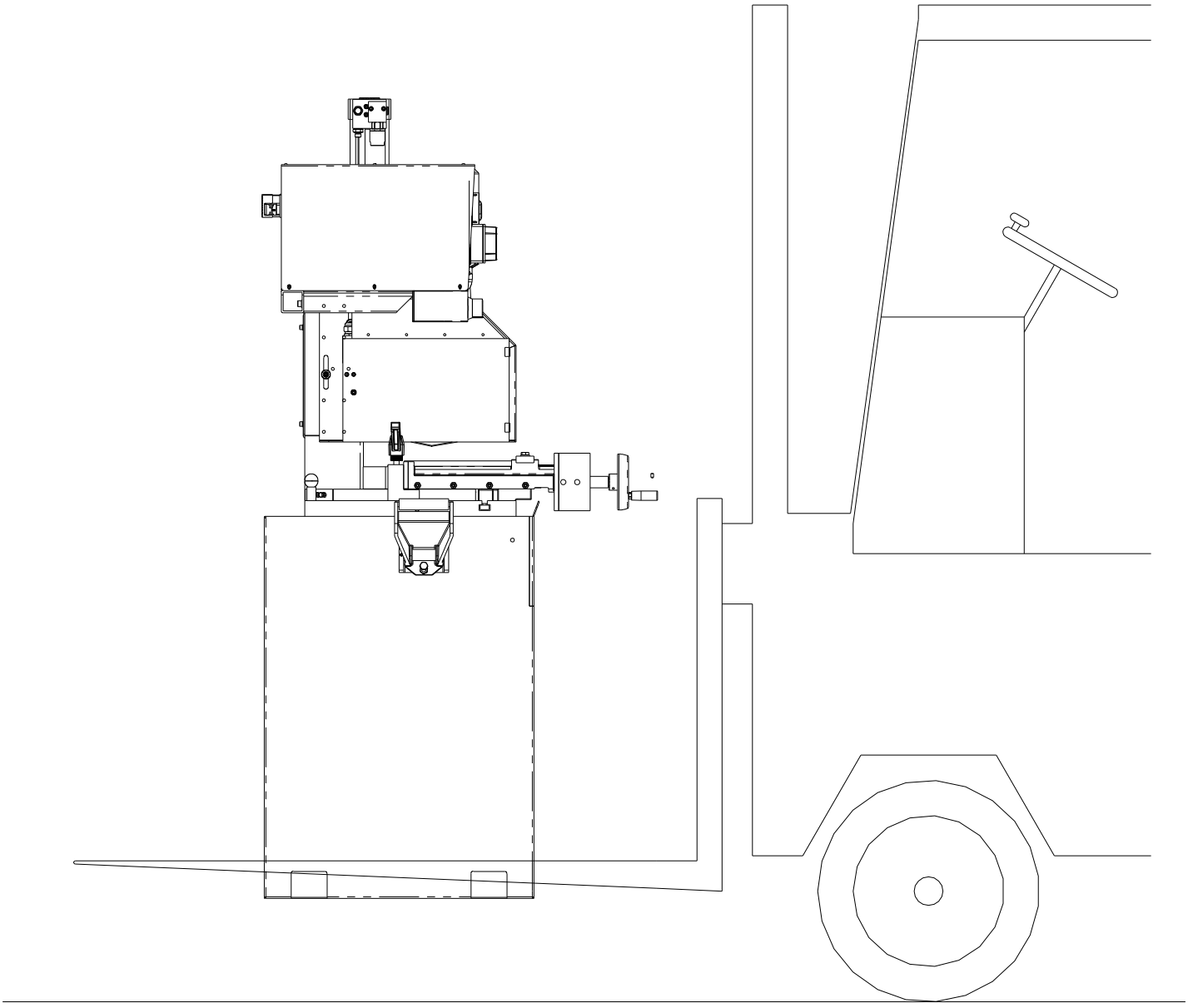
t= passo dentatura - toothing pitch
pas denture - entfernung verzahnung

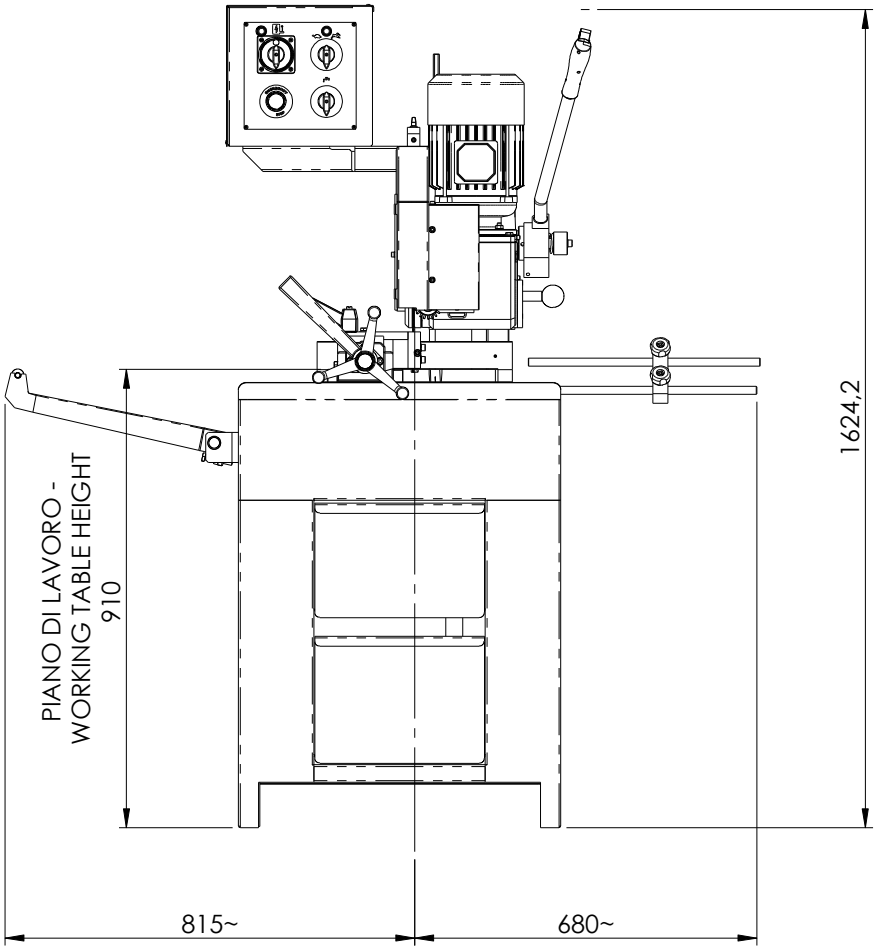
z= numero di denti - number of teeth
numero de dents - zahnnummer

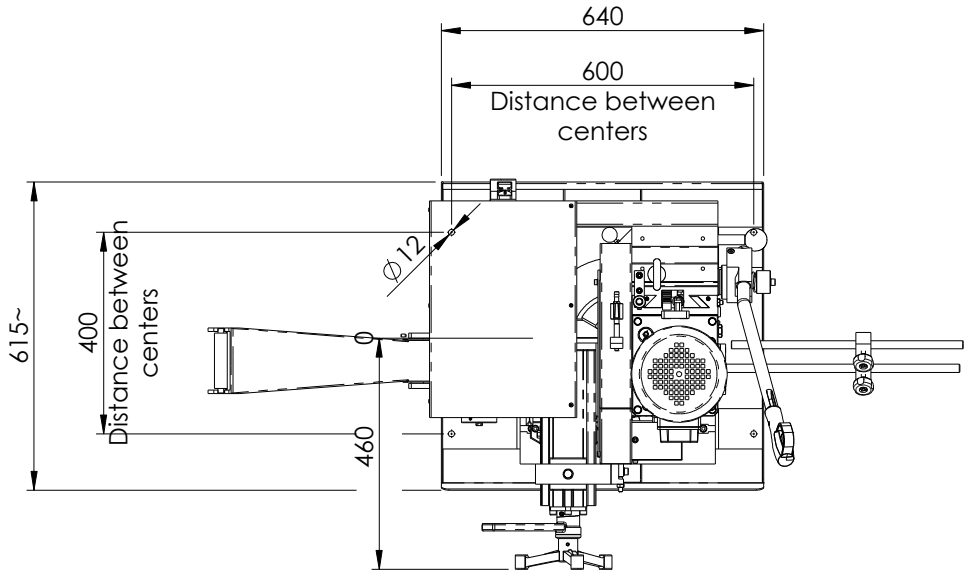
Allegato / Encl. 1 - Dis. / Draw. 1



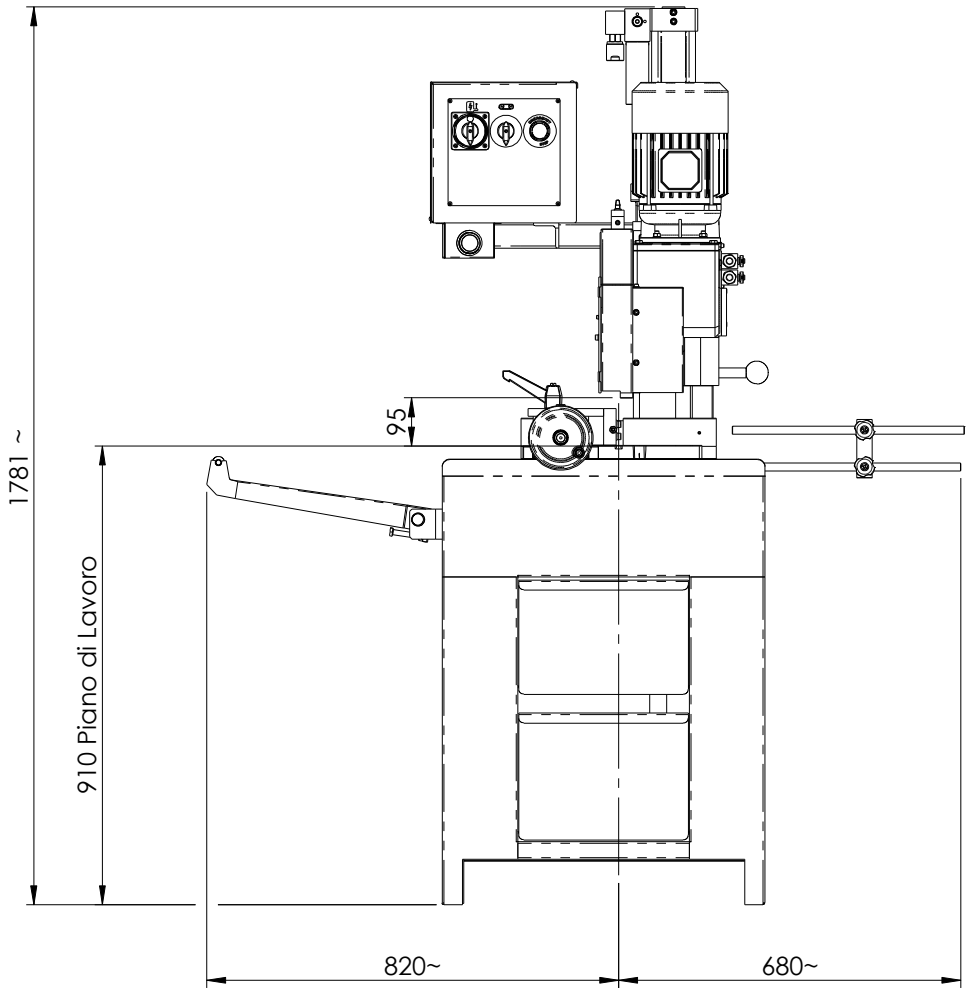


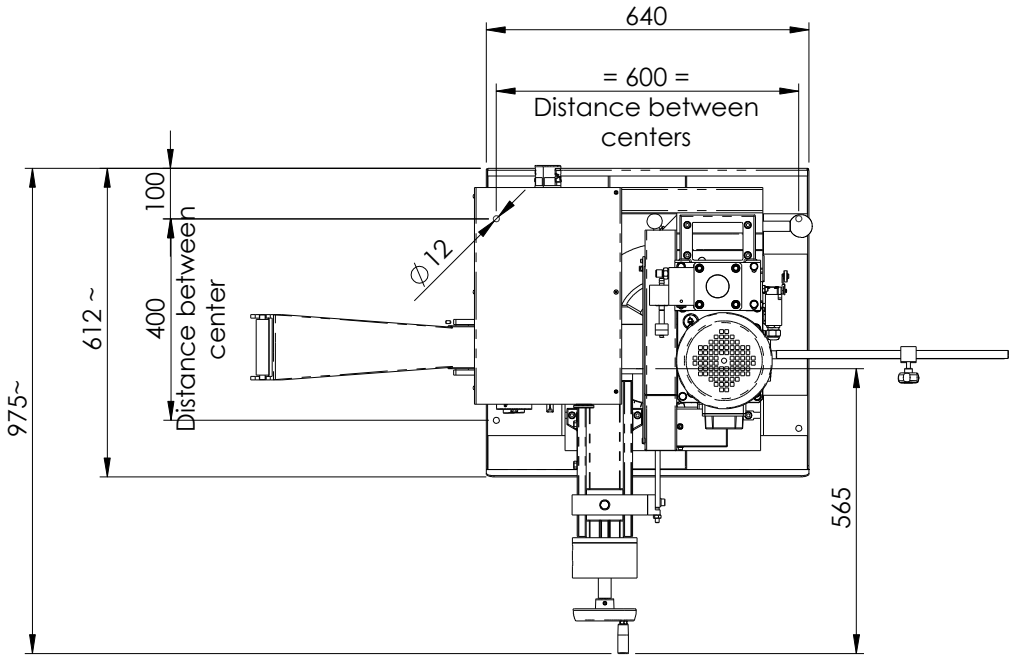






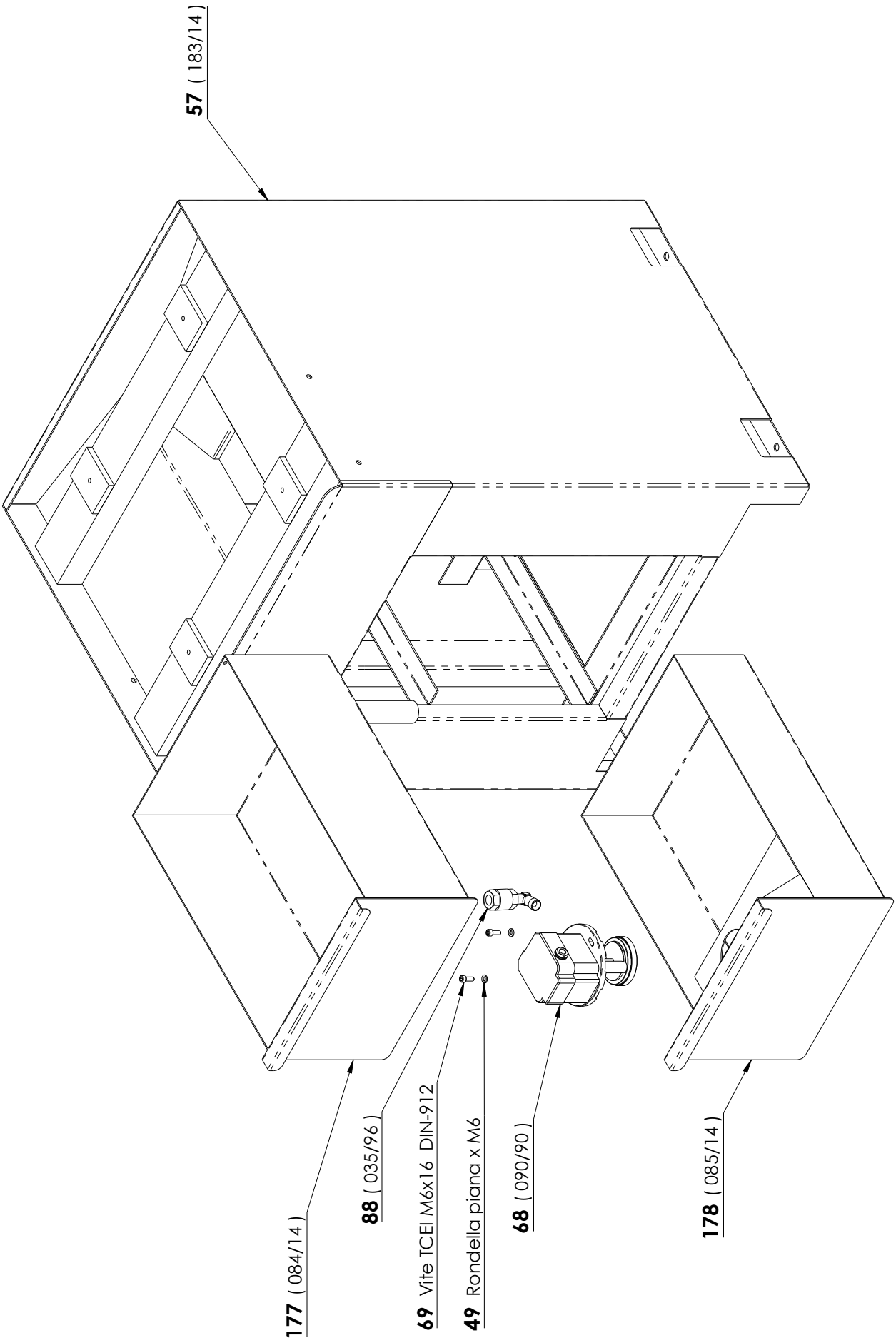
DIMENSIONI D'INGOMBRO ED INSTALLAZIONE	OVERALL DIMENSION AND INSTALLATION	DIMENSIONS HORS-TOUT ET INSTALLATION	AUSSENABMESSUNGEN UND INSTALLATION	DIMENSIONES MÀXIMAS EXTREMAS E INSTALACIÒN





DIMENSIONI D'INGOMBRO ED INSTALLAZIONE	OVERALL DIMENSION AND INSTALLATION	DIMENSIONS HORS-TOUT ET INSTALLATION	AUSSENABMESSUNGEN UND INSTALLATION	DIMENSIONES MÀXIMAS EXTREMAS E INSTALACIÒN

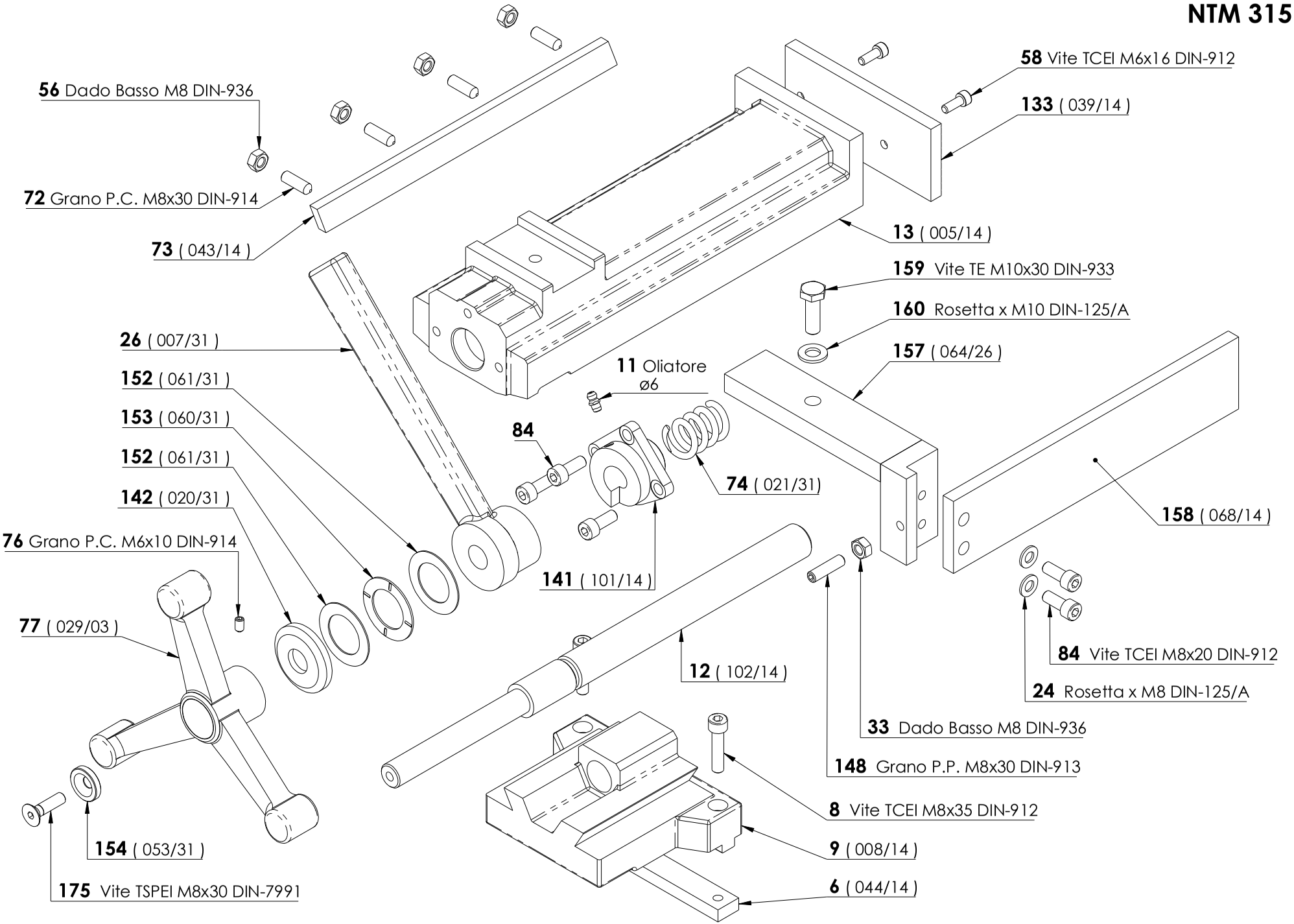
NTM 315 - NTS 315

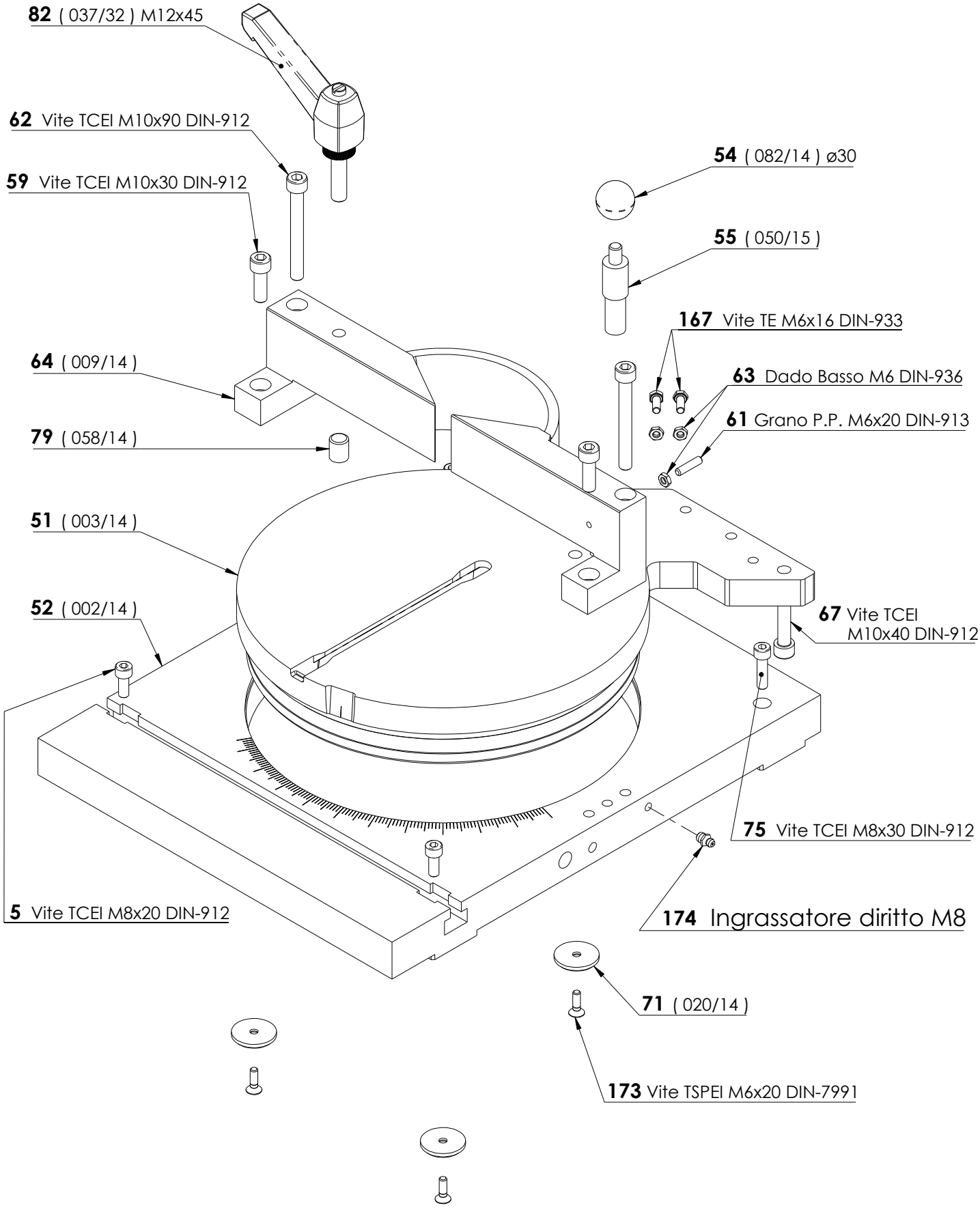


BASAMENTO	BASE	BASE	SOCKEL	BASE

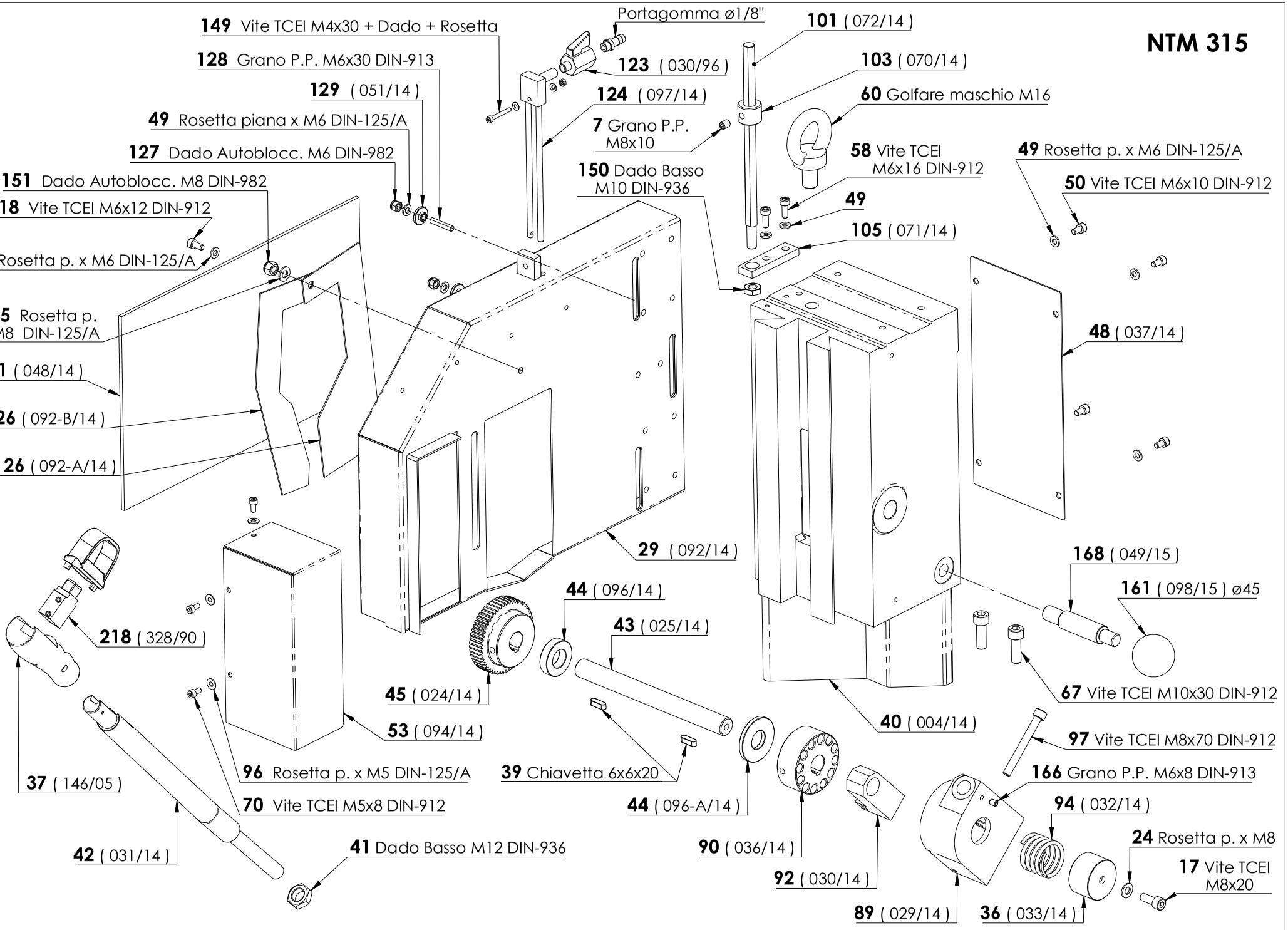
NTM 315

MORSA
VICE
ETAU
5
SCHRAUBSTOCK
MORDAZA



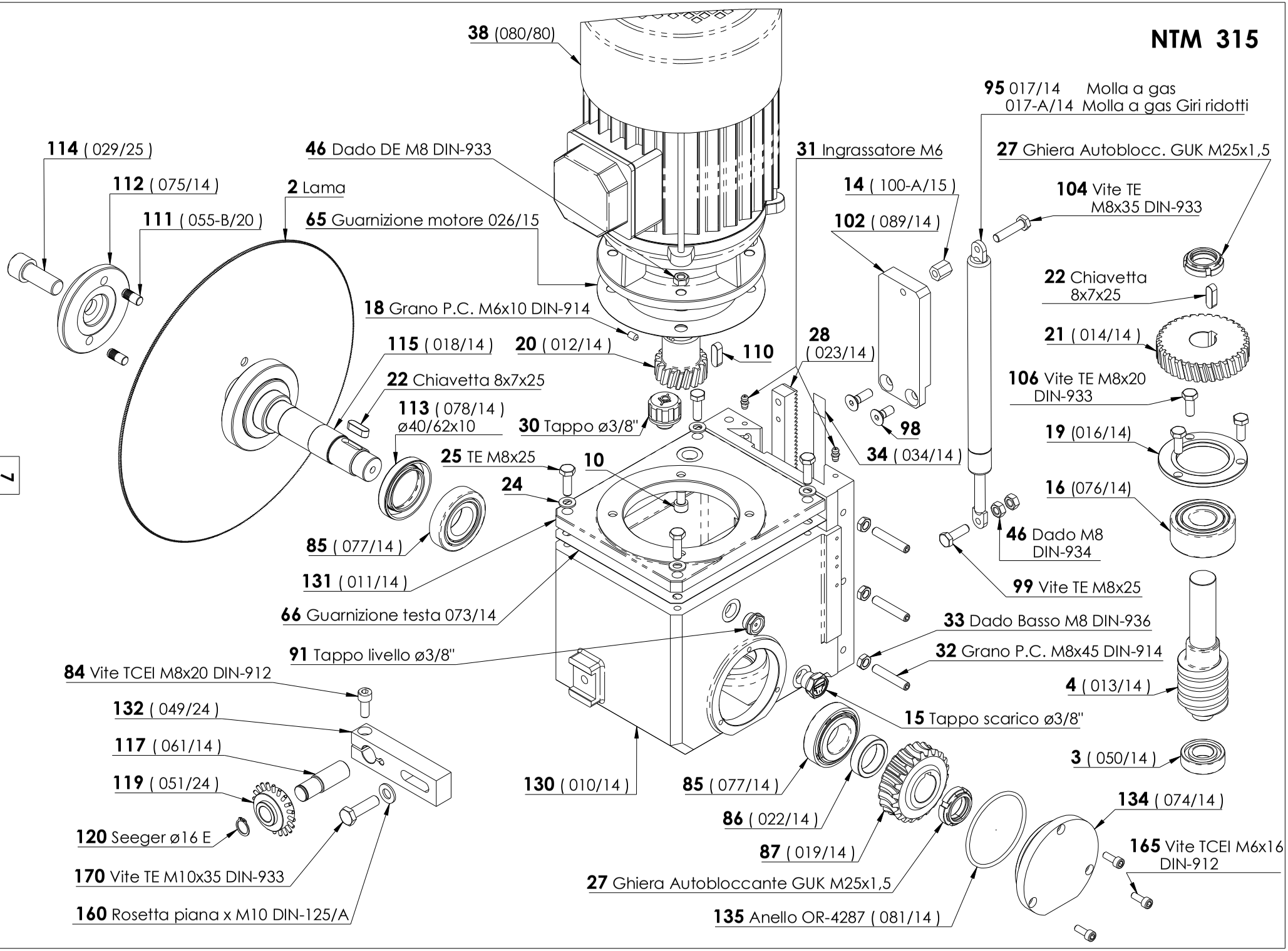

82 (037/32) M12x45
62 Vite TCEI M10x90 DIN-912
59 Vite TCEI M10x30 DIN-912
54 (082/14) ø30
55 (050/15)
167 Vite TE M6x16 DIN-933
64 (009/14)
63 Dado Basso M6 DIN-936
61 Grano P.P. M6x20 DIN-913
79 (058/14)
51 (003/14)
52 (002/14)
67 Vite TCEI M10x40 DIN-912
75 Vite TCEI M8x30 DIN-912
5 Vite TCEI M8x20 DIN-912
174 Ingrassatore diritto M8
71 (020/14)
173 Vite TSPEI M6x20 DIN-7991

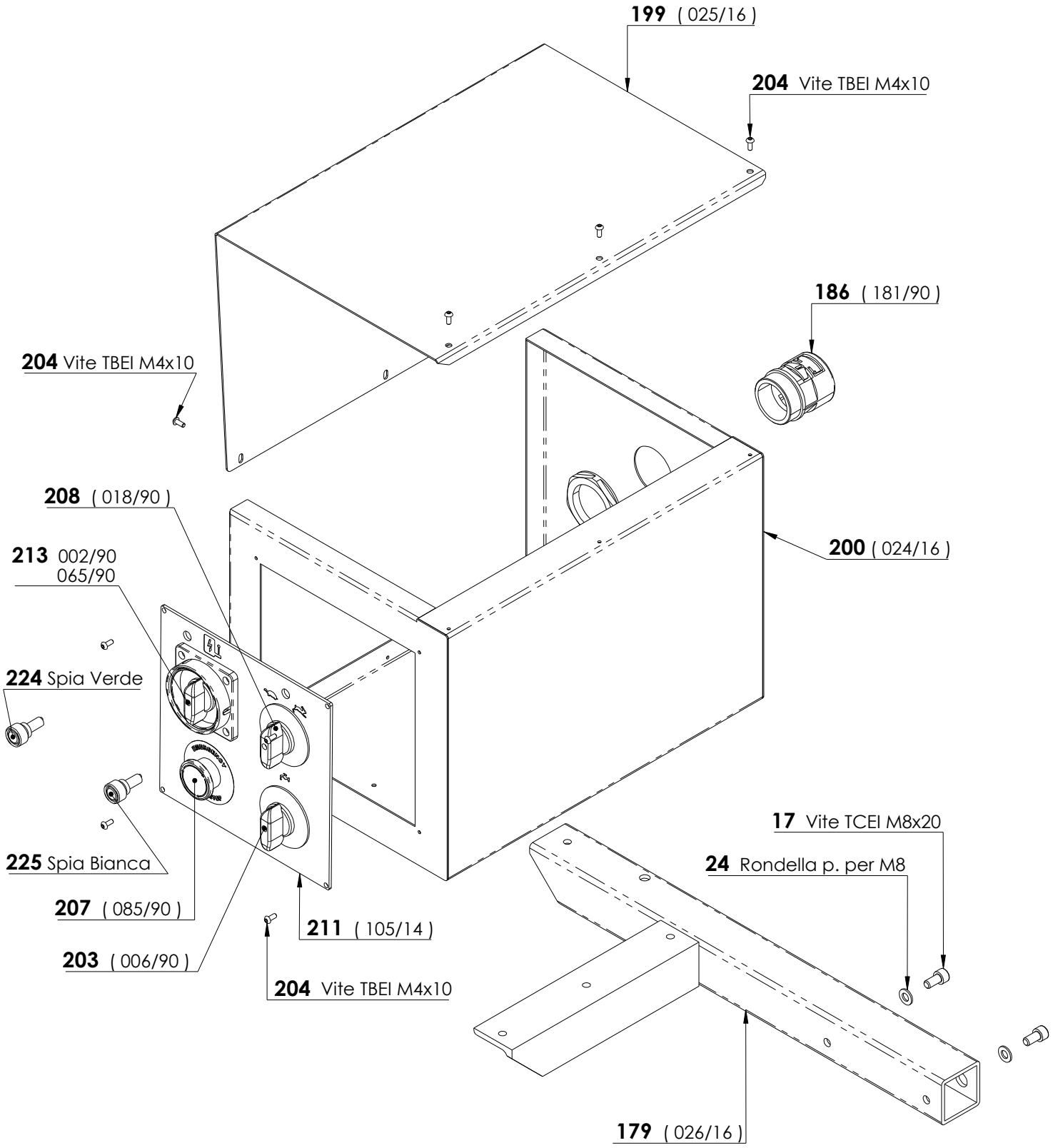
NTM 315


149 Vite TCEI M4x30 + Dado + Rosetta
128 Grano P.P. M6x30 DIN-913
129 (051/14)
49 Rosetta piana x M6 DIN-125/A
127 Dado Autoblocc. M6 DIN-982
151 Dado Autoblocc. M8 DIN-982
118 Vite TCEI M6x12 DIN-912
49 Rosetta p. x M6 DIN-125/A
125 Rosetta p. x M8 DIN-125/A
121 (048/14)
126 (092-B/14)
126 (092-A/14)
Portagomma ø1/8"
123 (030/96)
124 (097/14)
7 Grano P.P. M8x10
150 Dado Basso M10 DIN-936
101 (072/14)
103 (070/14)
60 Golfare maschio M16
58 Vite TCEI M6x16 DIN-912
49
105 (071/14)
49 Rosetta p. x M6 DIN-125/A
50 Vite TCEI M6x10 DIN-912
48 (037/14)
29 (092/14)
168 (049/15)
161 (098/15) ø45
44 (096/14)
43 (025/14)
218 (328/90)
45 (024/14)
53 (094/14)
67 Vite TCEI M10x30 DIN-912
40 (004/14)
97 Vite TCEI M8x70 DIN-912
166 Grano P.P. M6x8 DIN-913
94 (032/14)
24 Rosetta p. x M8
17 Vite TCEI M8x20
37 (146/05)
96 Rosetta p. x M5 DIN-125/A
70 Vite TCEI M5x8 DIN-912
39 Chiavetta 6x6x20
44 (096-A/14)
90 (036/14)
92 (030/14)
89 (029/14)
36 (033/14)
42 (031/14)
41 Dado Basso M12 DIN-936

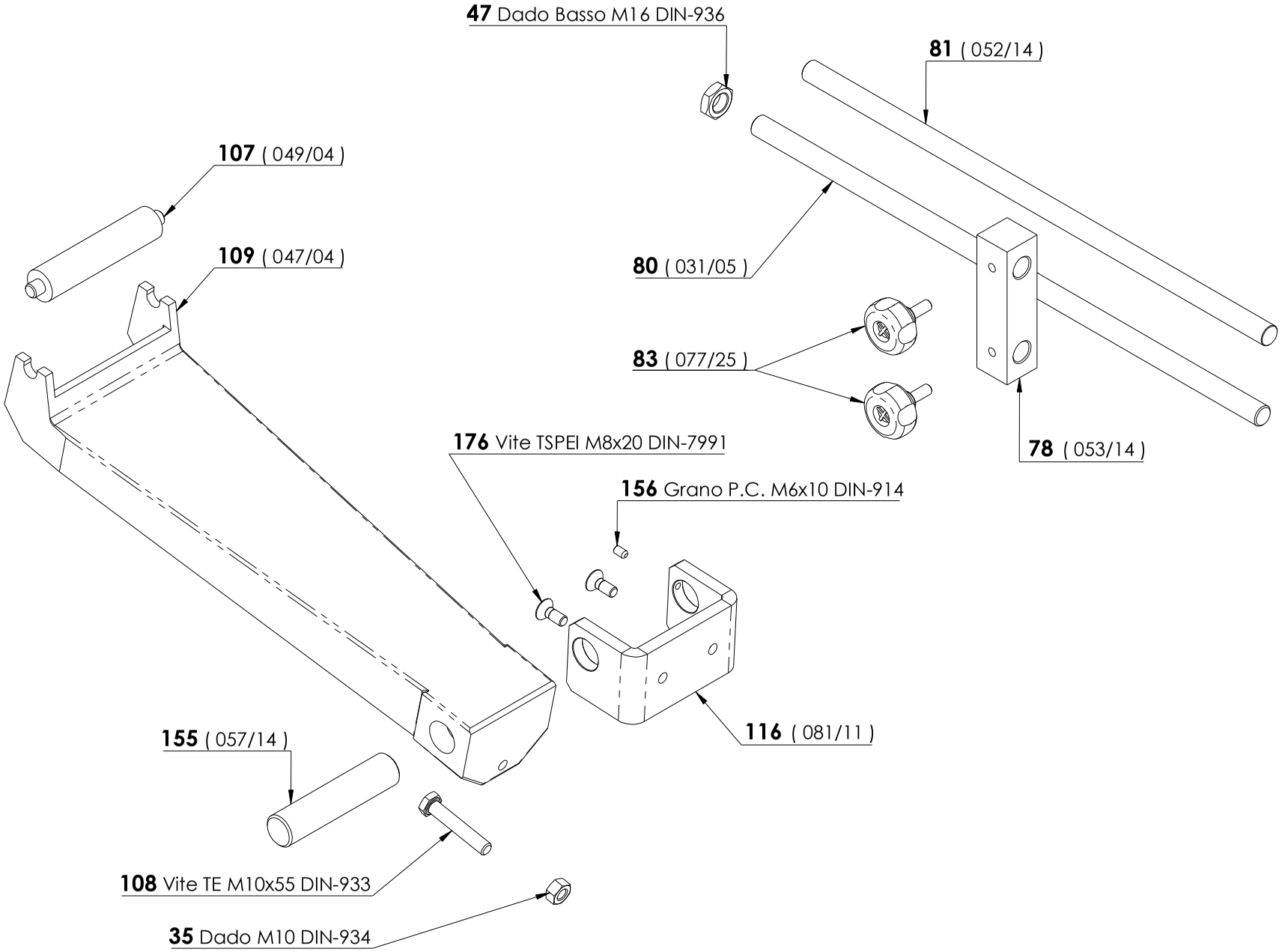
NTM 315

TESTA DI TAGLIO
CUTTING HEAD
TETE DE COUPE
SCHNEIDKOPF
CABEZAL DE CORTE



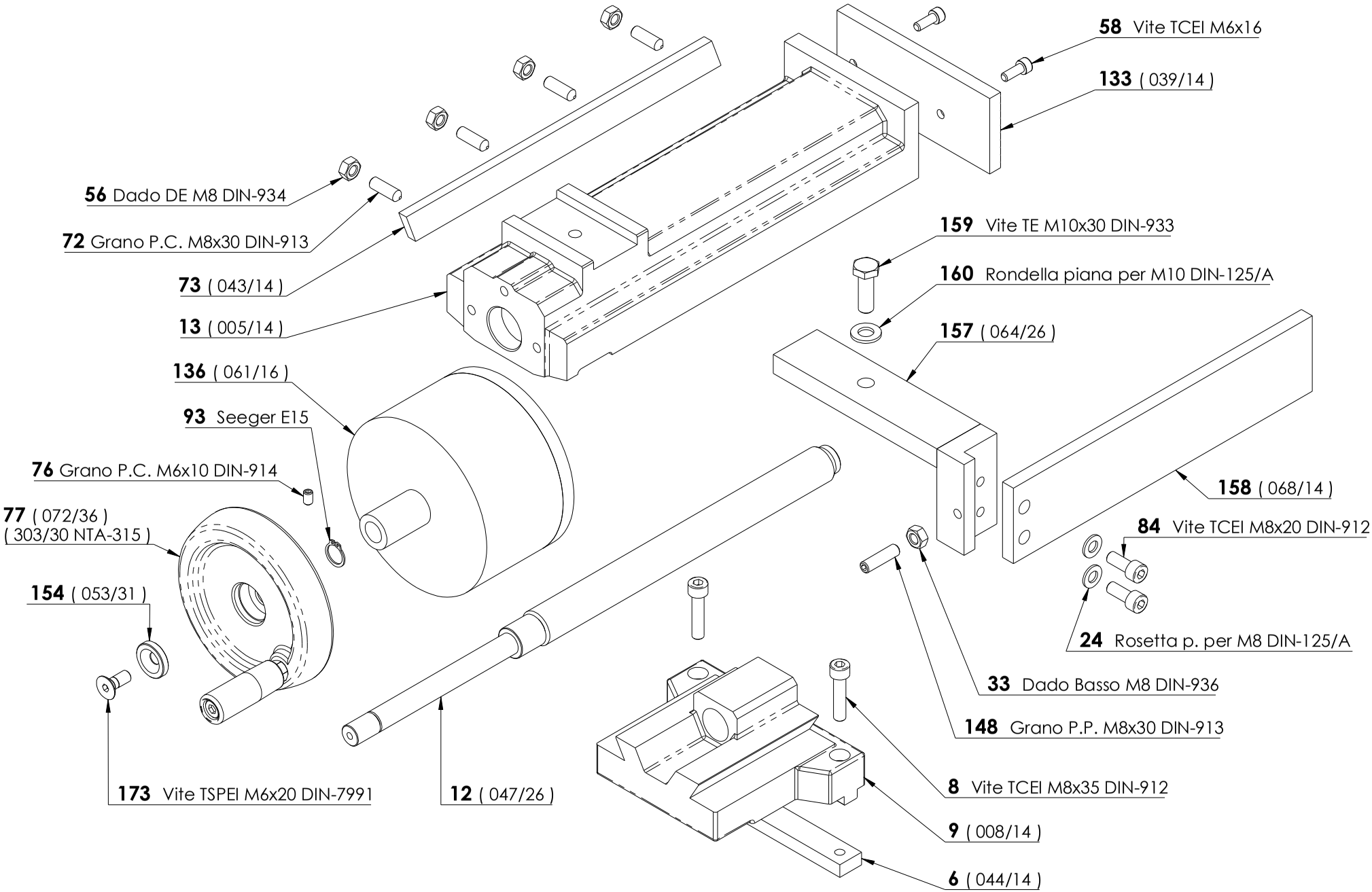


PANNELLO COMANDI	CONTROL PANEL	BOÎTIER DES COMMANDES	STEUERKASTEN	CAJA DE MANDOS


47 Dado Basso M16 DIN-936
81 (052/14)
107 (049/04)
109 (047/04)
80 (031/05)
83 (077/25)
78 (053/14)
176 Vite TSPEI M8x20 DIN-7991
156 Grano P.C. M6x10 DIN-914
116 (081/11)
155 (057/14)
108 Vite TE M10x55 DIN-933
35 Dado M10 DIN-934

FERMO BARRA

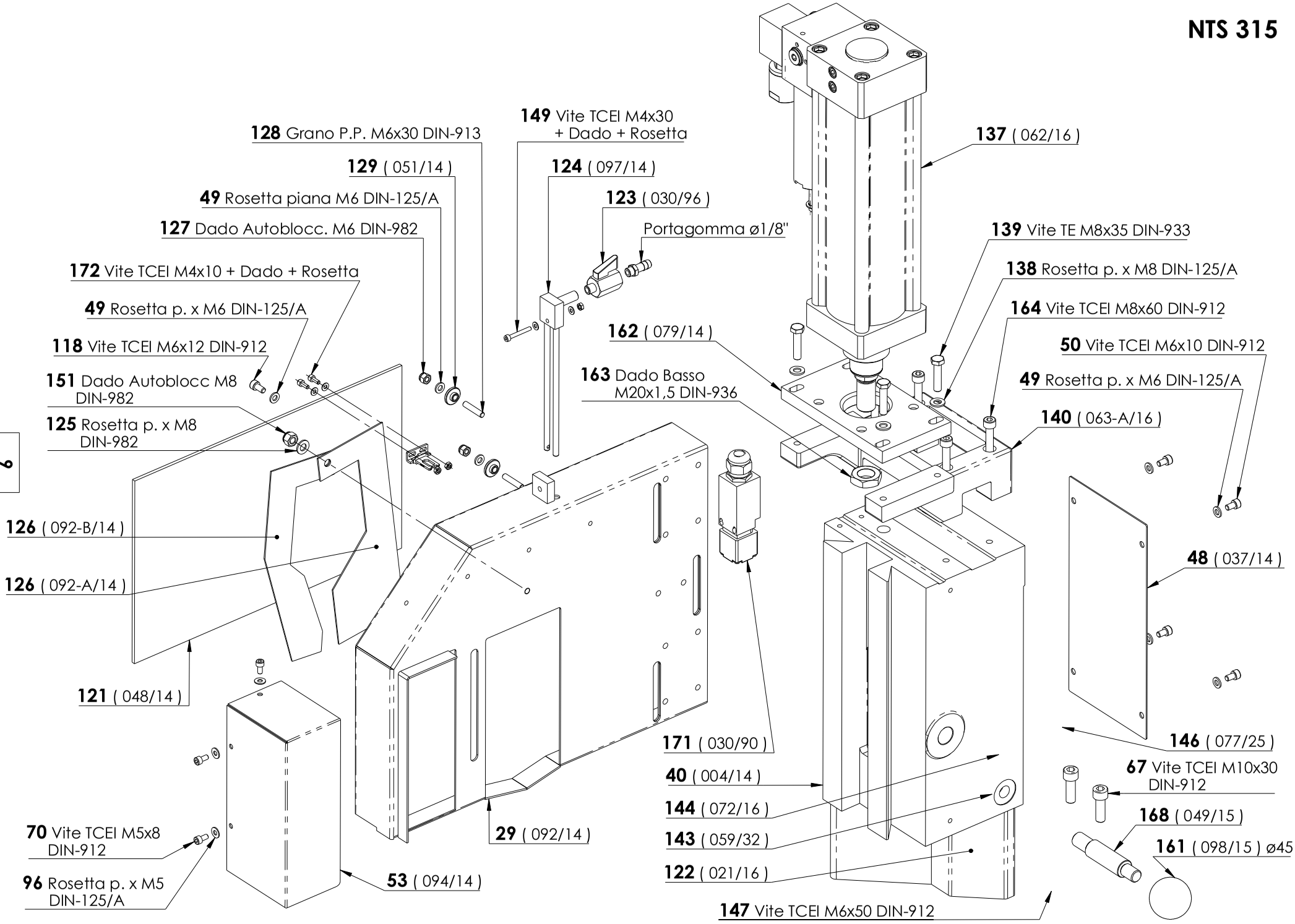
NTS 315 - NTA 315



NTS 315

COLONNA | COLUMN | COLONNE | SPALTE | COLUMNA

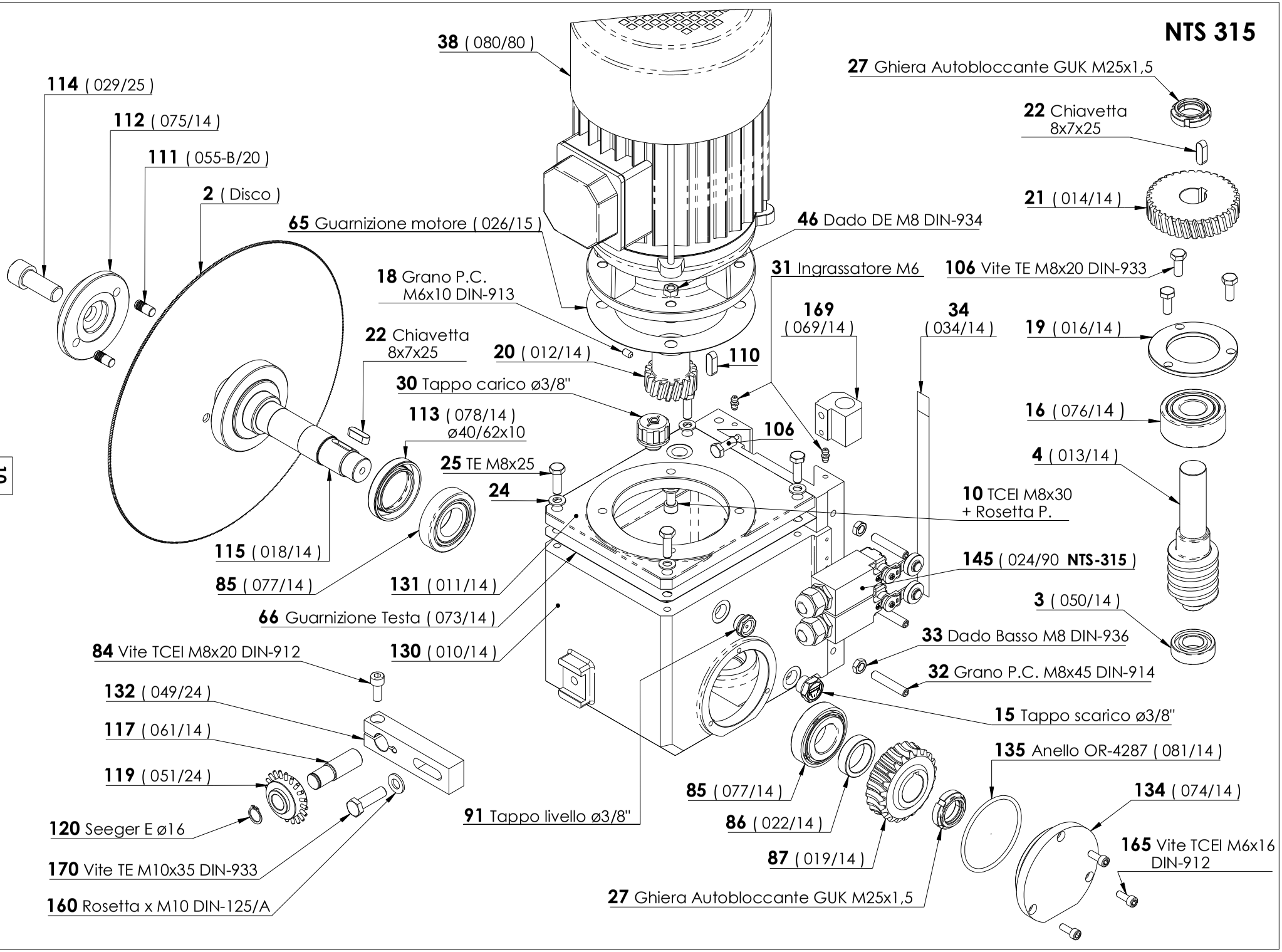
9

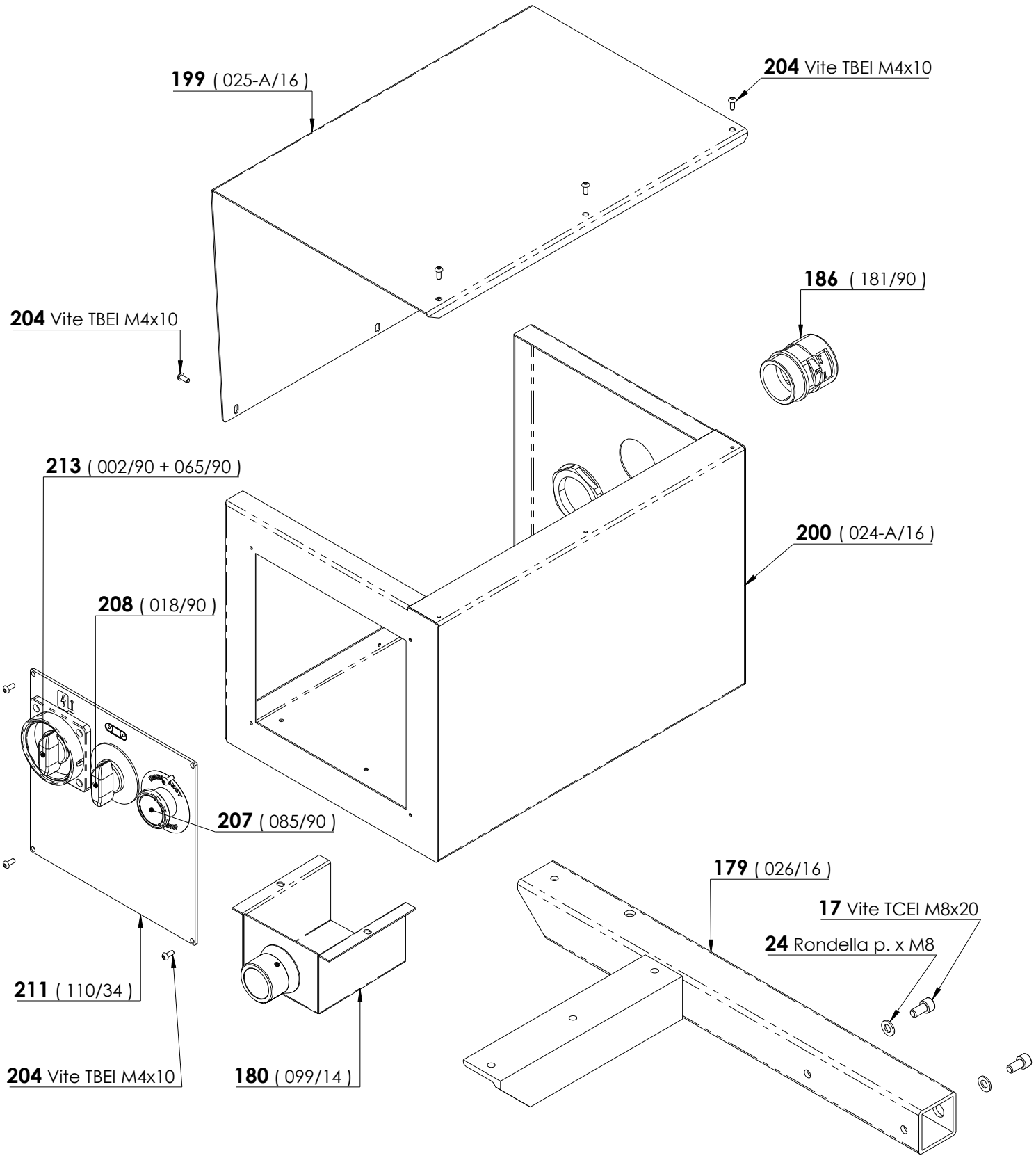


NTS 315

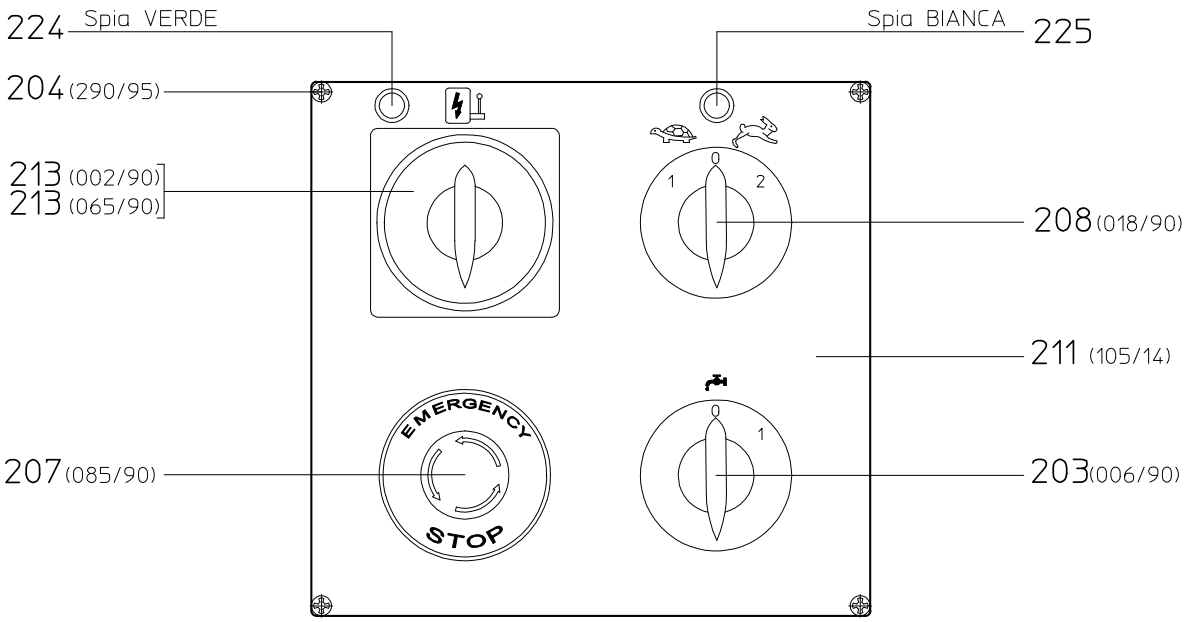
TESTA DI TAGLIO
CUTTING HEAD
TETE DE COUPE
SCHNEIDKOPF
CABEZAL DE CORTE

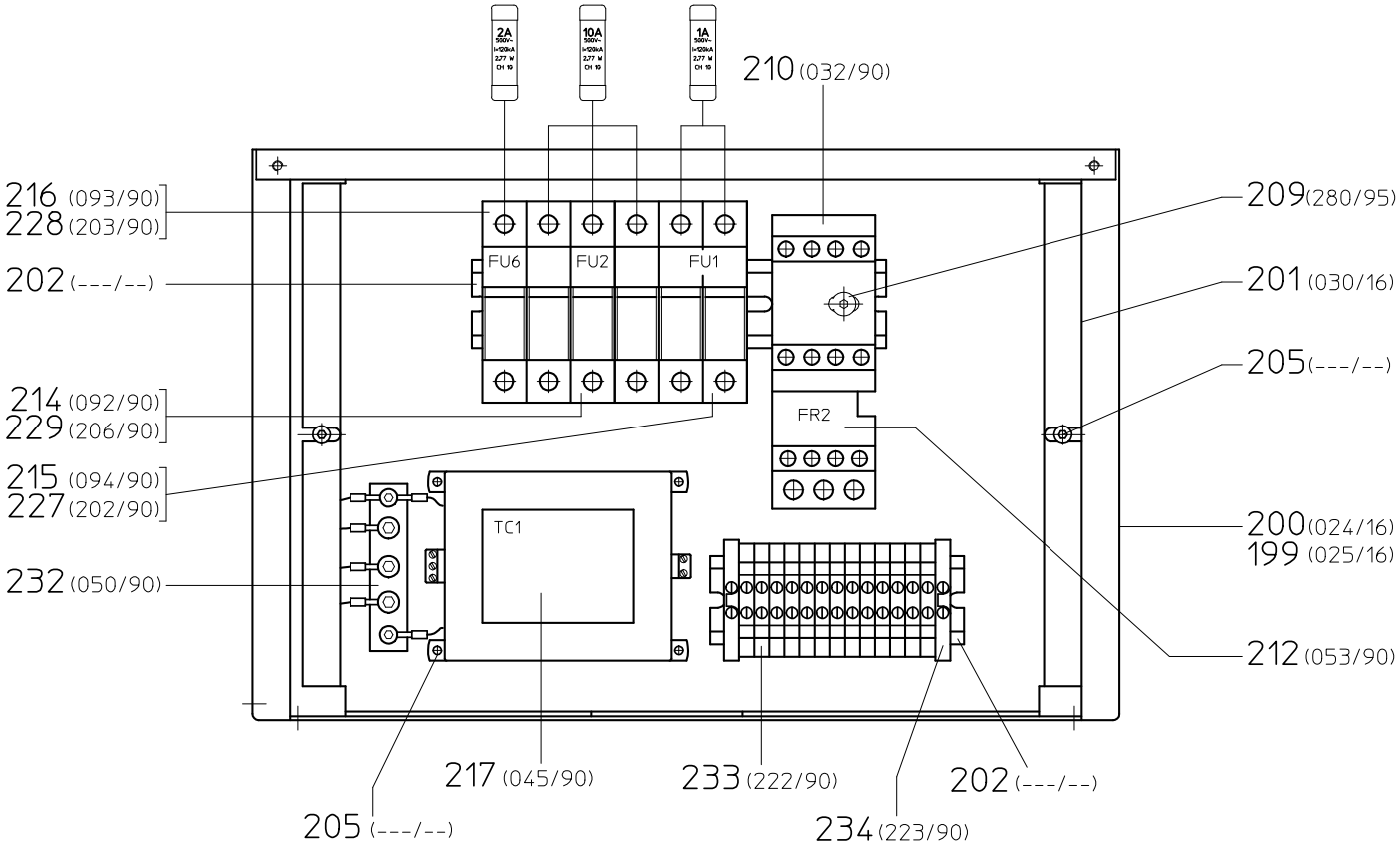
10

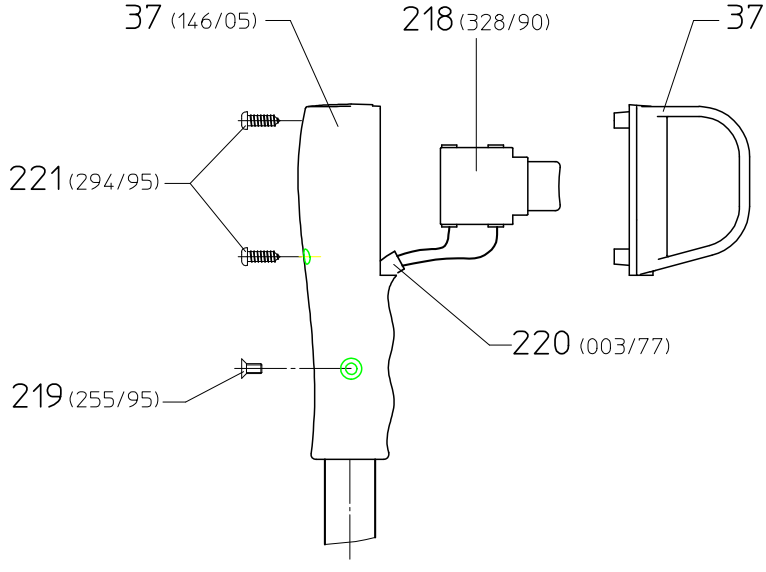




PANNELLO COMANDI	CONTROL PANEL	BOÎTIER DES COMMANDES	STEUERKASTEN	CAJA DE MANDOS

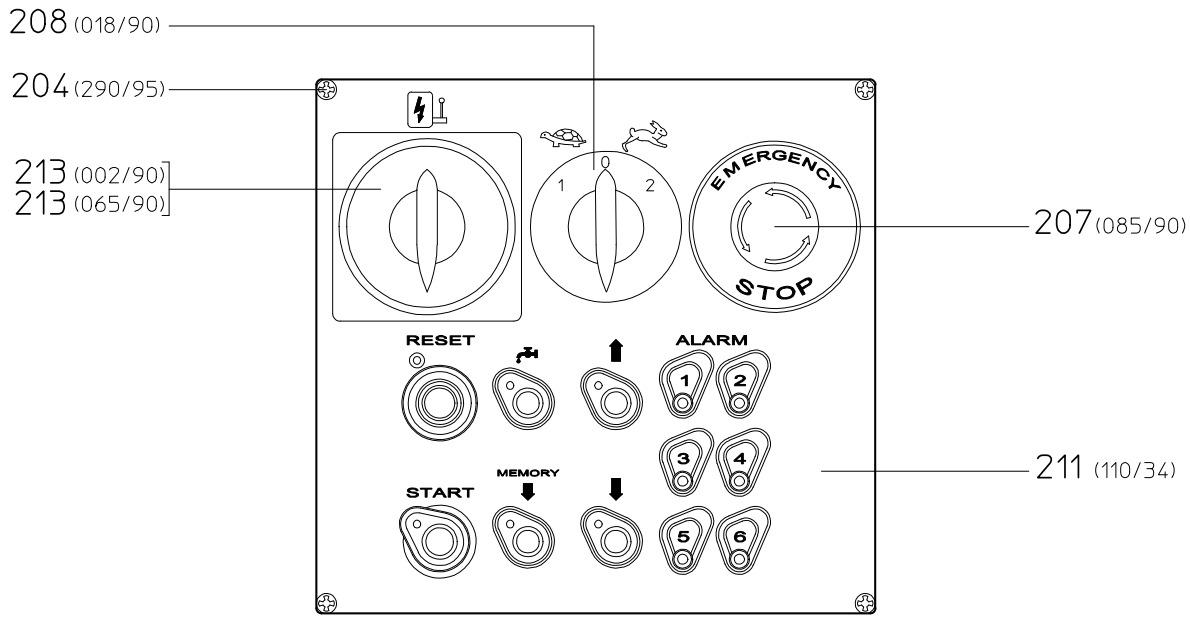


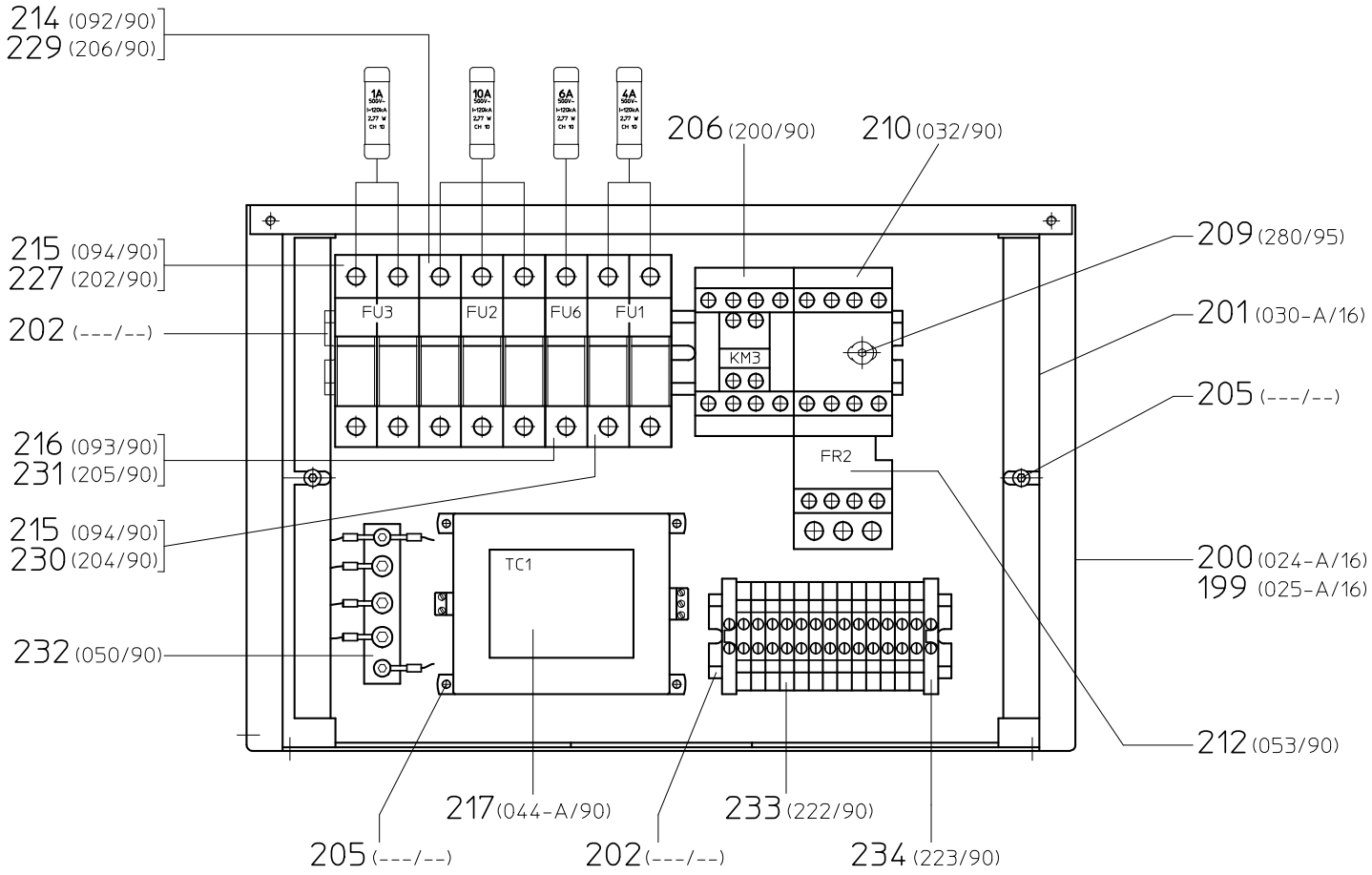




NTM 315 - 350

ALLEGATO "11"

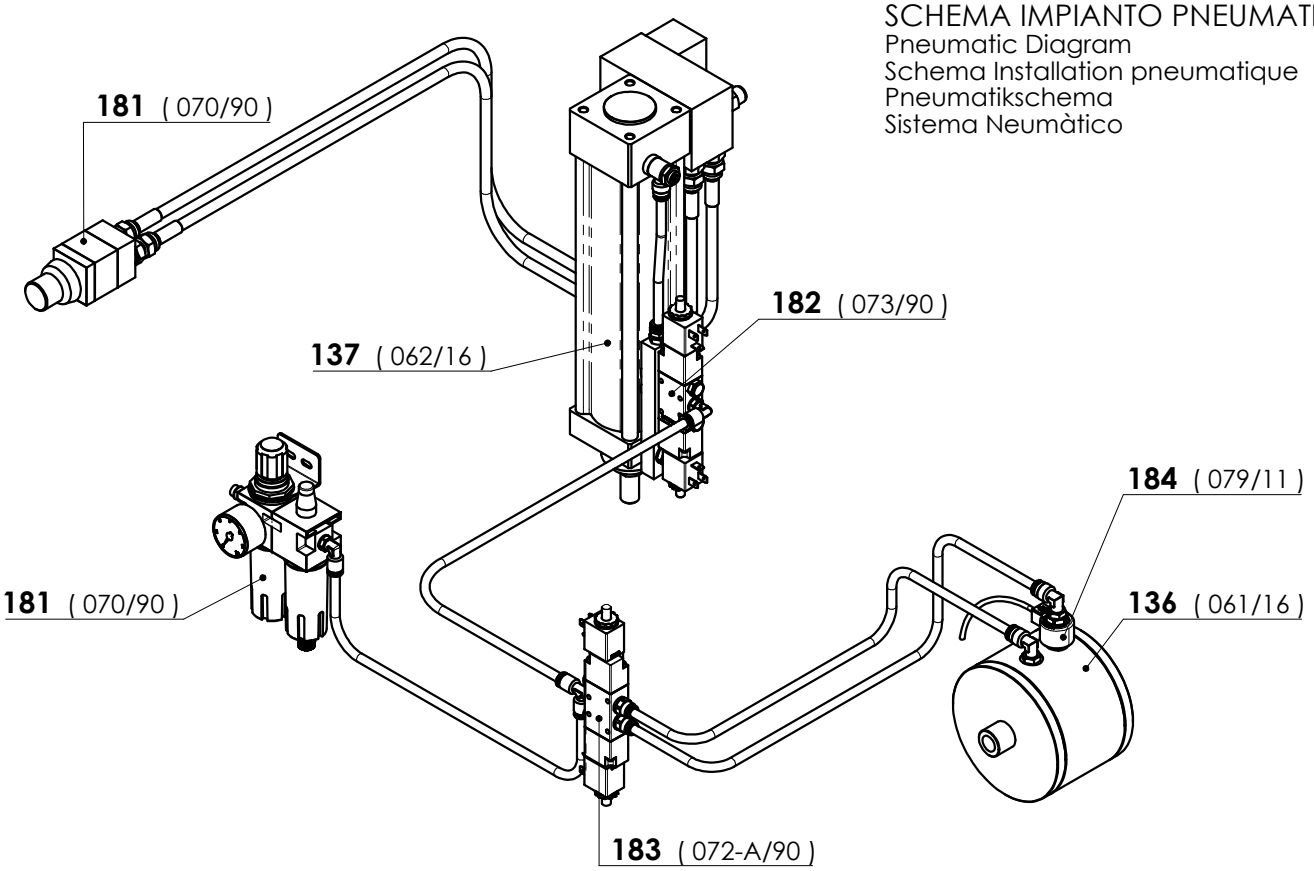


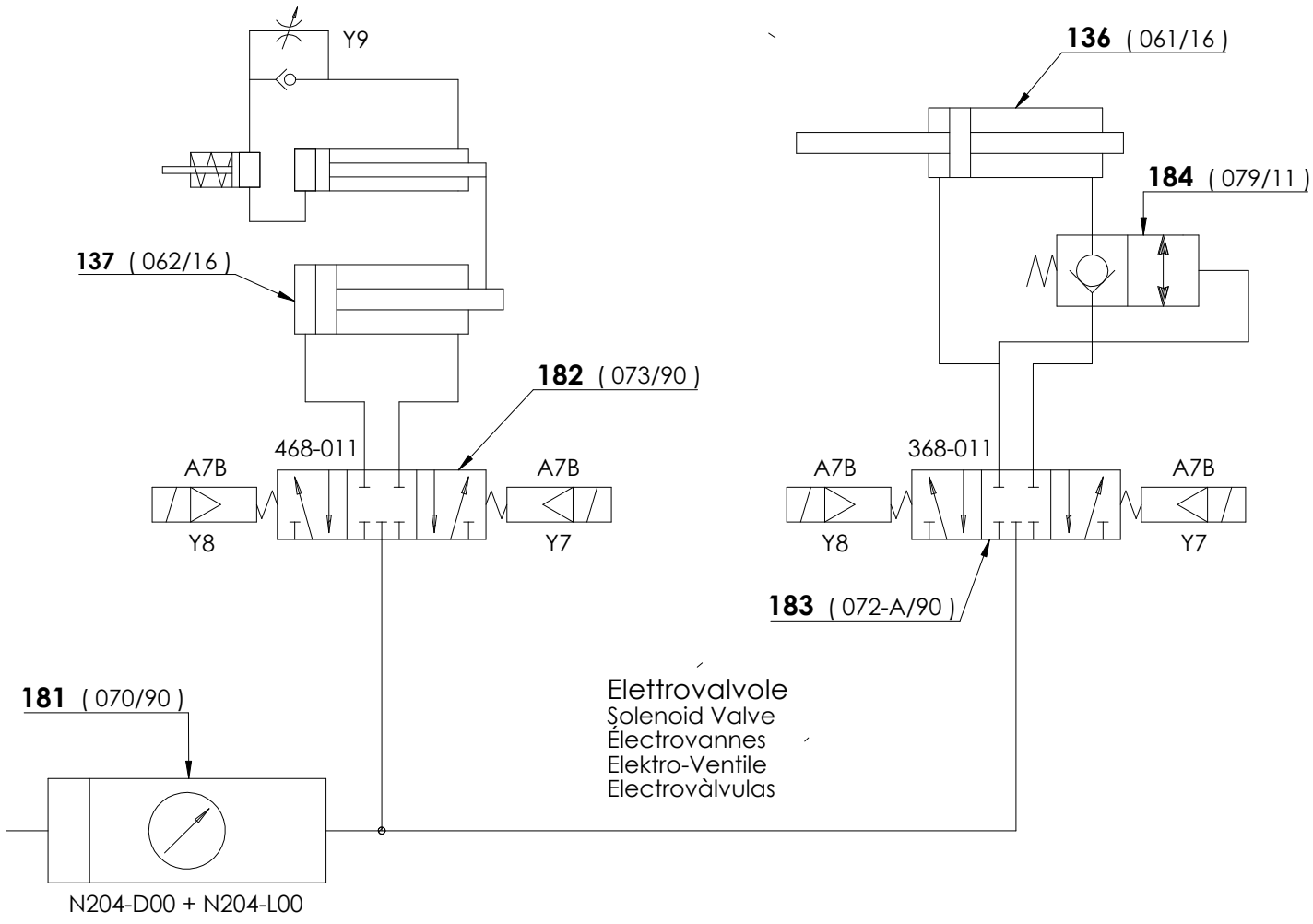


NTS 315 - NTM 350 S

ALLEGATO "11"

SCHEMA IMPIANTO PNEUMATICO
Pneumatic Diagram
Schema Installation pneumatique
Pneumatikschema
Sistema Neumàtico





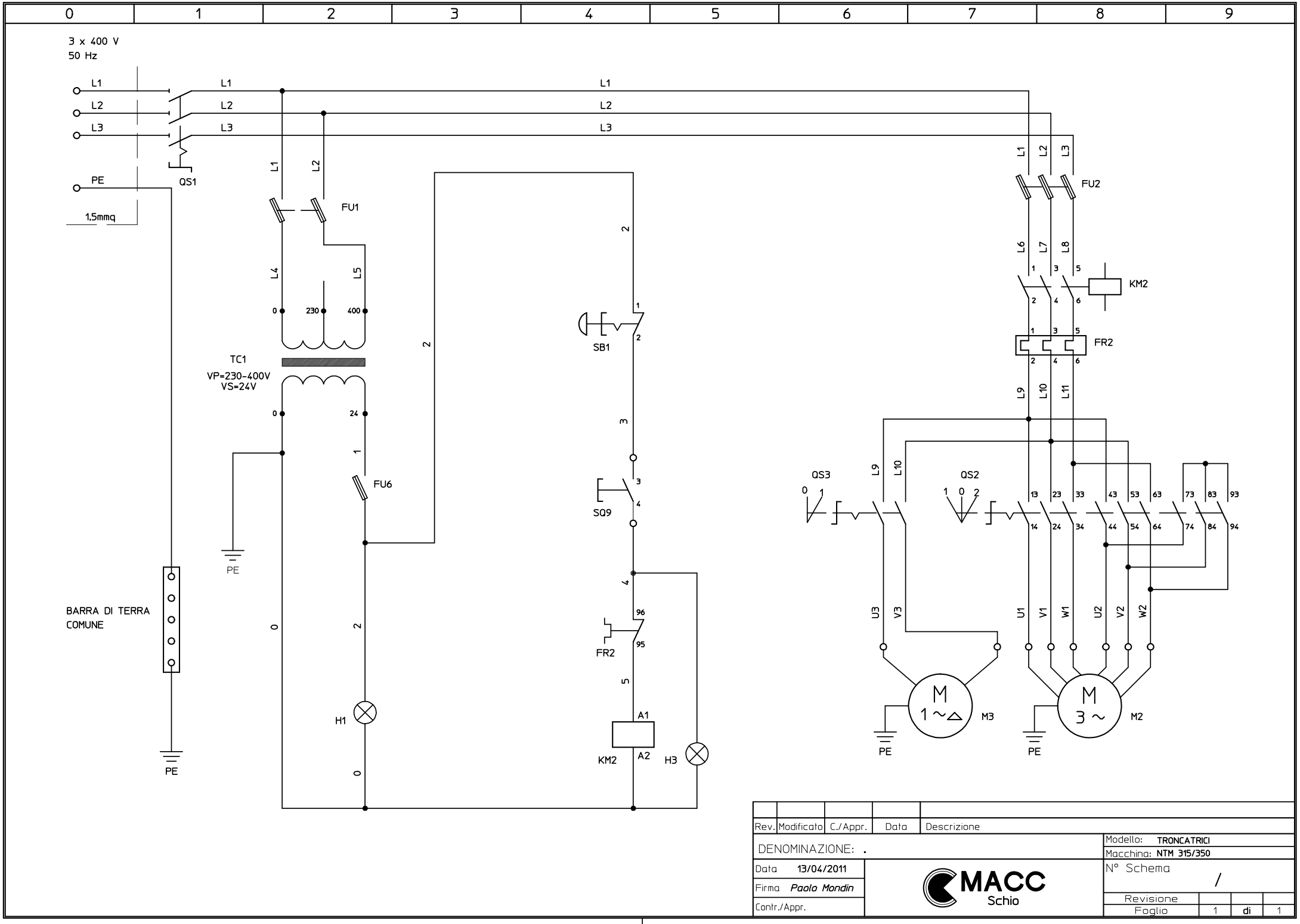
Elettrovalvole
Solenoid Valve
Électrovannes
Elektro-Ventile
Electrovàlvulas

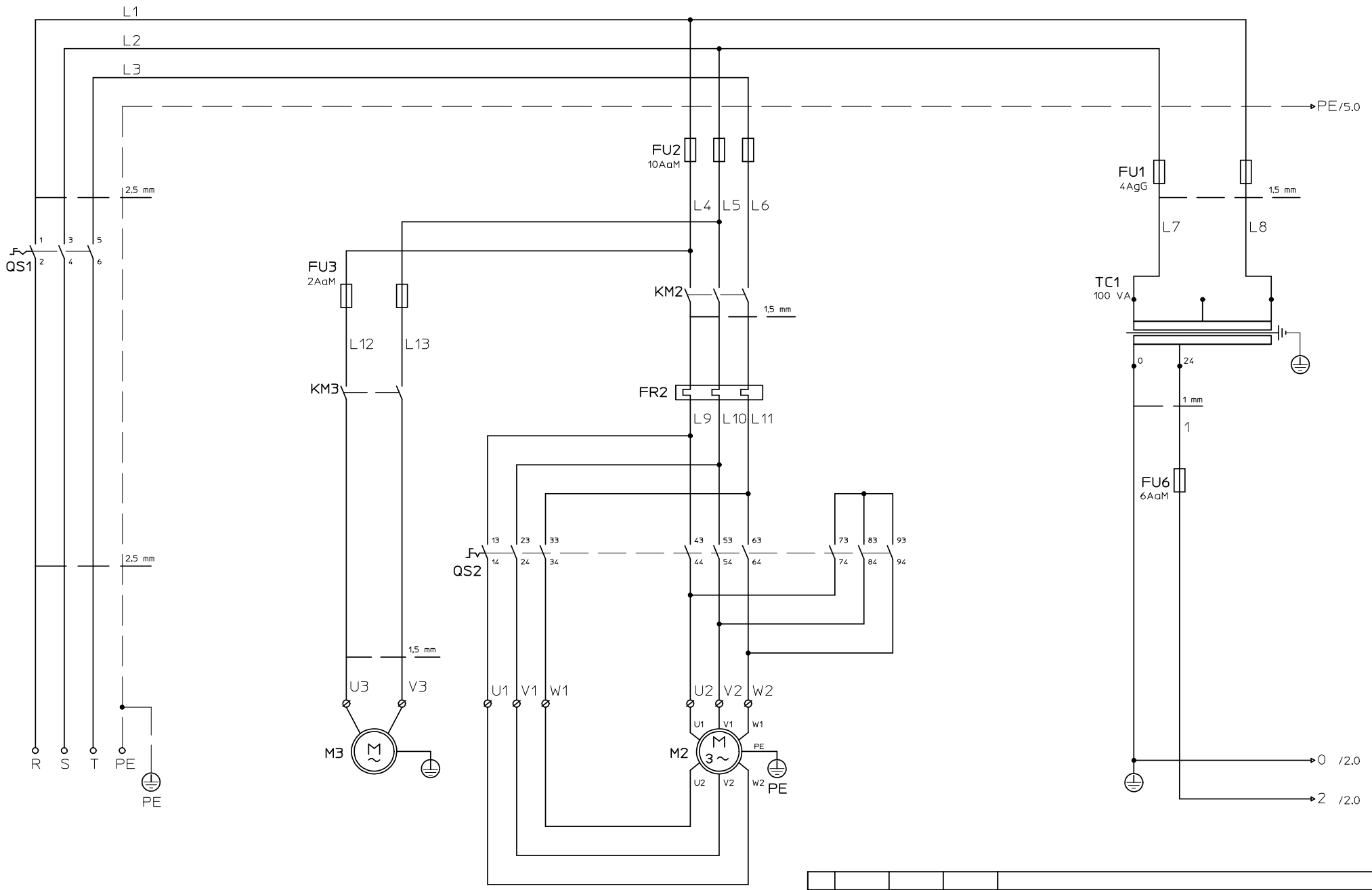
	ITALIANO	ENGLISH	DEUTSCH
FR1	RELE' TERMICO MOTORE POMPA OLIO	THERMAL RELAY OIL PUMP MOTOR	THERMISCHES RELAIS OIL PUMPE MOTOR
FR2	RELE' TERMICO MOTORE LAMA	THERMAL RELAY BLADE MOTOR	THERMISCHES RELAIS SÄGEBLATTMOTOR
FR3	RELE' TERMICO MOTORE REFRIGERANTE	THERMAL RELAY COOLANT MOTOR	THERMISCHES RELAIS ÜHLMITTELMOTOR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

M60	MOTORE RECUPERO REFRIGERANTE	COOLANT RECYCLE MOTOR	WIEDERGEWINNUNG KÜHLMITTELPUMPE MOTOR
M6	MOTORE AVANZAMENTO MATERIALE	MATERIAL FEEDING MOTOR	VORSCHUBMATERIAL MOTOR
N1	INVERTER MOTORE LAMA	BLADE MOTOR INVERTER	SÄGEBLATTMOTOR WECHSELRICHTER
N2	INVERTER MOTORE AVANZAMENTO MATERIALE	MATERIAL FEEDING MOTOR INVERTER	VORSCHUBMATERIAL MOTOR WECHSELRICHTER
P1	POTENZIOMETRO POSIZIONAMENTO LAMA	BLADE POSITIONING POTENTIOMETER	SÄGEBLATT-STENUNG POTENZIOMETER
P2	POTENZIOMETRO VELOCITA' LAMA	BLADE SPEED POTENTIOMETER	SÄGEBLATT-GESCHWINDIGKEIT POTENZIOMETER
PX1	SENSORE ROTAZIONE LAMA	BLADE ROTATION SENSOR	BLATT UMDREHUNGSSENSOR
QS1	INTERRUTTORE GENERALE	MAIN ON / OFF SWITCH	HAUPTSCHALTER
QS2	INTERRUTTORE / COMMUTATORE DI VELOCITA'	SWITCH / SPEED CHANGE OVERSWITCH	SCHALTER / GESCHWINDIGKEIT UMSCHALTER
QS3	INTERRUTTORE POMPA REFRIGERANTE	COOLANT PUMP SWITCH	KÜHLMITTELPUMPE SCHALTER
R	RELE' COMANDO MARCIA ROTAZIONE LAMA	ROTATING BLADE COMMAND RELAY	SÄGEBLATT UMDREHUNG POTENZIOMETER
R1	RELE' COMANDO TELERUTTORE POMPA OLIO	OIL PUMP REMOTE CONTROL SWITCH COMMAND RELAY	RELAIS OIL PUMPE FERNSCHALTER
R10	RELE' PRESSINO ON	VERTICAL VICE RELAY	SENKRECHT SCHRAUBSTOCK RELE
R2	RELE' COMANDO TELERUTTORE LAMA	BLADE REMOTE CONTROL SWITCH COMMAND RELAY	RELAIS BLATT FERNSCHALTER
R5	RELE' COMANDO MICROLUBRIFICAZIONE	MICROLUBRICATION COMMAND RELAY	MIKROSPRÜHEINRICHTUNGSTEUER RELAIS
RT	RELE' TEMPORIZZATORE	TIMER RELAY	ZEITGEBER RELE
RX	RELE' COMANDO TERMOSTATO	THERMOSTAT COMMAND RELAY	THERMOSTATSTEUER RELAIS
RYV5	RELE' DISCESA LAMA	BADE DESCENT RELAY	SAEGEBLATT ABSTIG RELE
S	SELETTORE FUNZIONE	FUNCTION SELECTOR	FUNKTION WÄHLER
S10	SELETTORE PRESSINO ON	VERTICAL VICE ON CHANGEOVER SWITCH	GESCHWINDIGKEITUMRICHTER WAEHLER ON
S4	SELETTORE CAMBIO LAMA	BLADE RELACEMENT CHANGEOVER SWITCH	SAEGEBLATT WAEHLSCHALTER
SB1	PULSANTE DI ARRESTO EMERGENZA	EMERGENCY PUSH BUTTON	NOT AUS TASTER
SB11	PULSANTE DETENSIONAMENTO LAMA	BLADE DETENSIONING BUTTON	SAEGEBLATT ENSPANNSCHALTER
SB12	PULSANTE TENSIONAMENTO LAMA	BLADE TENSIONING BUTTON	SAEGEBLAT SPANNSCHALTER
SB2	PULSANTE START CICLO	CYCLE START BUTTON	ZYKLUS START TASTER
SB3	PUSANTE DI RESET	RESET BUTTON	RESETTASTER
SB4	PULSANTE CHIUSURA MORSA	LOCK VICE BUTTON	SPANNSOCH SCHLIEß TASTER
SB5	PULSANTE APERTURA MORSA	OPEN VICE BUTTON	SPANNSTOCK ÖFFNUNG TASTER
SB6	PULSANTE DI SALITA	BUTTON UP	OBEN TASTER
SB7	PULSANTE DI DISCESA	BUTTON DOWN	HINTEN TASTER
SB8	PULSANTE REFRIGERANTE “ON”	REFRIGERANTE BUTTON “ON”	KÜHLUNG EIN TASTER
SB9	PULSANTE MEMORY	MEMORY BUTTON	MEMORY TASTER

SB90	PULSANTE DI SBLOCCO	RELEASE BUTTON	AUSLOESER TASTE
SQ1	MICROINTERRUTTORE ROTTURA LAMA	MICROSWITCH BLADE FAILURE	ENDSCHALTER BLATT GEBROCHEN
SQ10	MICROINTERRUTTORE START A PEDALE	PEDAL MICROSWITCH START	PEDALS MIKROSCHALTER
SQ11	MICROINTERRUTTORE CHIUSURA MORSA A PEDALE	PEDAL VICE CLOSING MICROSWITCH	FuβSCHALTER SPENNSTOCK SCHLIEβEN MIKROSCHALTER
SQ15	FINECORSA GUIDA PEZZO AVANTI	MICROSWITCH GUIDE-PIECE FORWARD	ENDSCHALTER FÜHRUNGSSTÜCK NACH VORNE
SQ16	FINECORSA GUIDA PEZZO INDIETRO	MICROSWITCH GUIDE-PIECE BACKWARD	ENDSCHALTER FÜHRUNGSSTÜCK NACH HINTEN
SQ18	FINECORSA SOLLEVATORE ALTO	MICROSWITCH LIFT UP POSITION	HEBEWERK NACH OBEN ENDSCHALTER
SQ2	MICROINTERRUTTORE CARTER APERTO 1	MICROSWITCH PROTECTION CASE	ENDSCHALTER SCHUTZGEHÄUSE
SQ02	MICROINTERRUTTORE CARTER APERTO 2	COVER OPEN MICROSWITCH	SCHUTZ GEÖFFNET ENDSCHALTER
SQ20	PRESSOSTATO CHIUSURA MORSA	VICE PRESSURE SWITCH	SPANNDRUCK TASTE
SQ3	FINECORSA CARRO AVANTI	MICROSWITCH CARRIAGE FORWARD	ENDSCHALTER WAGEN VORNE
SQ30	FINECORSA ROTAZIONE -45°	MICROSWITCH -45° ROTATION	-45° UMDREHUNG ENDSCHALTER
SQ4	FINECORSA CARRO INDIETRO	MICROSWITCH CARRIAGE BACK	ENDSCHALTER WAGEN ZURÜCK
SQ5	FINECORSA TESTA ALTA	MICROSWITCH HEAD / BOW UP	ENDSCHALTER BÜGEL NACH OBEN
SQ6	FINECORSA TESTA BASSA	MICROSWITCH HEAD / BOW DOWN	ENDSCHALTER BÜGEL NACH UNTEN
SQ7	MICROINTERRUTTORE FINE MATERIALE	MICROSWITCH BAR END	ENDSCHALTER STANGENENDE
SQ70	PROSSIMITI PRESENZA PEZZO	MICROSWITCH PIECE PRESENCE	STÜCKANWESENDHEIT ENDSCHALTER
SQ8	MICROINTERRUTTORE MANIGLIONE (CARICO)	MICROSWITCH HANDLE	ENDSCHALTER GRIFF
SQ9	MICROINTERRUTTORE START MANUALE	MICROSWITCH MANUAL START	ENDCSHALTER MANUELL START
T	TEMPORIZZATORE	TIMER	ZEITGEBER
TC1	TRASFORMATORE	TRANSFORMER	TRANSFORMATOR
TR	TERMOSTATO	THERMOSTAT	THERMOSTAT
TR	TERMORESISTENZA	THERMO-RESISTANCE	THERMO-WIDERSTAND
YV1	ELETTROVALVOLA CARRO AVANTI LENTO	CARRIAGE SLOW FORWARD MOTION SOLENOID VALVE	ELEKTROVENTIL WAGEN LANGSAM VORNE
YV10	ELETTROVALVOLA SBLOCCAGGIO MANUALE	MANUAL UNLOCKING SOLENOID VALVE	ELEKTROVENTIL MANUELL AUFHEBUNG
YV11	ELETTROVALVOLA DETENSIONAMENTO LAMA	UNTIGHTNING BLADE SOLENOID VALVE	SAEGEBLATT ENTSPANNUNG MAGNETVENTIL
YV11	ELETTROVALVOLA DETENSIONAMENTO LAMA	BLADE DETENSIONING SOLENOID VALVE	ELETRISCHESVETIL SAEGEBLATT ENSPANNUNG
YV12	ELETTROVALVOLA TENSIONAMENTO LAMA	TIGHTNING BLADE SOLENOID VALVE	SAEGEBLATT SPANNUNG MAGNETVENTIL
YV12	ELETTROVALVOLA TENSIONAMENTO LAMA	BLADE TENSIONING SOLENOID VALVE	ELETRISCHESVENTIL SAEGEBLATT SPANNUNG
YV15	ELETTROVALVOLA SOLLEVATORE CARICATORE	LOADER LIFT SOLENOID VALVE	LADEMAGAZIN HEBEWERK ELEKTROVENTIL
YV16	ELETTROVALVOLA MORSA CARICATORE	LOADER VICE SOLENIOID VALVE	LADEMAGAZINSPANNSTOCK ELEKTROVENTIL
YV18	ELETTROVALVOLA GIUDA PEZZO AVANTI	GUIDE-PIECE FORWARD VALVE	ELEKTROVENTIL ZAUN NACH VORNE

YV19	ELETTROVALVOLA GUIDA PEZZO INDIETRO	GUIDE-PIECE BACKWARD VALVE	ELEKTROVENTIL HINTEREN ZAUN
YV2	ELETTROVALVOLA CARRO INDIETRO LENTO	CARRIAGE SLOW BACK MOTION SOLENOID VALVE	ELEKTROVENTIL WAGEN LANGSAM ZURÜCK
YV20	SBLOCCAGGIO ROTAZIONE	ROTATION UNLOCK	UMDREHUNG LOSMACHEN
YV3	ELETTROVALVOLA MORSA MOBILE	MOVABLE VICE SOLENOID VALVE	ELEKTROVENTIL BEWEGLICHER SPANNSTOCK
YV30	ELETTROVALVOLA MORSA MOBILE CHIUDE	CLOSE MOVABLE VICE VALVE	BEW. SPANNSTOCK SCHLIEß ELEKTROVENTIL
YV30P	ELETTROVALVOLA PRESSINO CARRO	CARRIAGE VICE SOLENOID VALVE	ELETRISCHESVENTIL SCHRAUBSTOCK VORSCHUBWAGEN
YV31	ELETTROVALVOLA RUOTA ARCO LENTO	SLOW BOW ROTATION SOLENOID VALVE	LANGSAM SÄGEARMUMDREHUNG ELEKTROVENTIL
YV37	ELETTROVALVOLA RUOTA DX	ROTATION LEFTWARDS SOLENOID VALVE	UMDREHUNG LINKS ELEKTROVENTIL
YV38	ELETTROVALVOLA RUOTA SX	ROTATION RIGHTWARDS SOLENOID VALVE	UMDREHUNG RECHTS ELEKTROVENTIL
YV4	ELETTROVALVOLA SALITA	UP STROKE SOLENOID VALVE	ELEKTROVENTIL ANSTIEG
YV5	ELETTROVALVOLA DISCESA	DOWN STROKE SOLENOID VALVE	ELEKTROVENTIL ABSTIEG
YV50	ELETTROVALVOLA DISCESA LAMA RAPIDA	QUICK LOWERING SOLENOID VALVE	SCHNELL ELEKTROVENTIL ABSTIEG
YV6	ELETTROVALVOLA APERTURA MORSA FISSA	FIXED VICE OPENING SOLENOID VALVE	ELEKTROVENTIL FESTER SPANNSTOCK ÖFFNUNG
YV60	ELETTROVALVOLA CHIUSURA MORSA FISSA	FIXED VICE CLOSING SOLENOID VALVE	ELEKTROVENTIL FESTER SPANNSTOCK SCHLIESSEN
YV60P	ELETTROVALVOLA PRESSINO FISSO	FIXED VICESOLENOID VALVE	ELETRISCHESVENTIL FESTSCHRAUBSTOCK
YV61	ELETTROVALVOLA SPAZZOLA	BRUSH VALVE	BÜRSTE ELEKTROVENTIL
YV62	ELETTROVALVOLA ATTIVAZIONE 2a POMPA OLIO	SECOND OIL PUMP	ZWEITE ÖLPUMPE EIN ELEKTROVENTIL
YV7	ELETTROVALVOLA CARRO AVANTI	CARRIAGE FORWARD SOLENOID VALVE	ELEKTROVENTIL WAGEN VORNE
YV70	ELETTROVALVOLA SPAZZOLA	BRUSH SOLENOID VALVE	BUERSTE MAGNETVENTIL
YV8	ELETTROVALVOLA CARRO INDIETRO	CARRIAGE BACK SOLENOID VALVE	ELEKTROVENTIL WAGEN ZURÜCK
YV9	ELETTROVALVOLA BLOCCO	MANUAL LOCKING SOLENOID VALVE	ELEKTROVENTIL BLOCK
YV90	ELETTROVALVOLA MICROLUBRIFICAZIONE	MICROLUBRICATION SOLENOID	MIKROSPRÜHEINRICHTUNG ELEKTROVENTIL


0 1 2 3 4 5 6 7 8 9
3 x 400 V
50 Hz
L1
L2
L3
PE
QS1
1,5mmq
FU1
L4
L5
0
230
400
TC1
VP=230-400V
VS=24V
24
FU6
BARRA DI TERRA
COMUNE
H1
SB1
SQ9
FR2
96
95
A1
A2
KM2
H3
FU2
L6
L7
L8
KM2
FR2
L9
L10
L11
QS3
QS2
U3
V3
U1
V1
W1
U2
V2
W2
M
1~
M3
3~
M2
400V-50Hz 3F
Rev.
Modificato
C./Appr.
Data
Descrizione
DENOMINAZIONE: .
Data 13/04/2011
Firma Paolo Mondin
Contr./Appr.
MACC
Schio
Modello: TRONCATRICI
Macchina: NTM 315/350
N° Schema /
Revisione
Foglio 1 di 1



Rev.	Modificato	C./Appr.	Data	Descrizione

DENOMINAZIONE: Schema elettrico di potenza

Data 29/03/2016

Firma *Andrea Scremin*

Contr./Appr.

MACC Schio

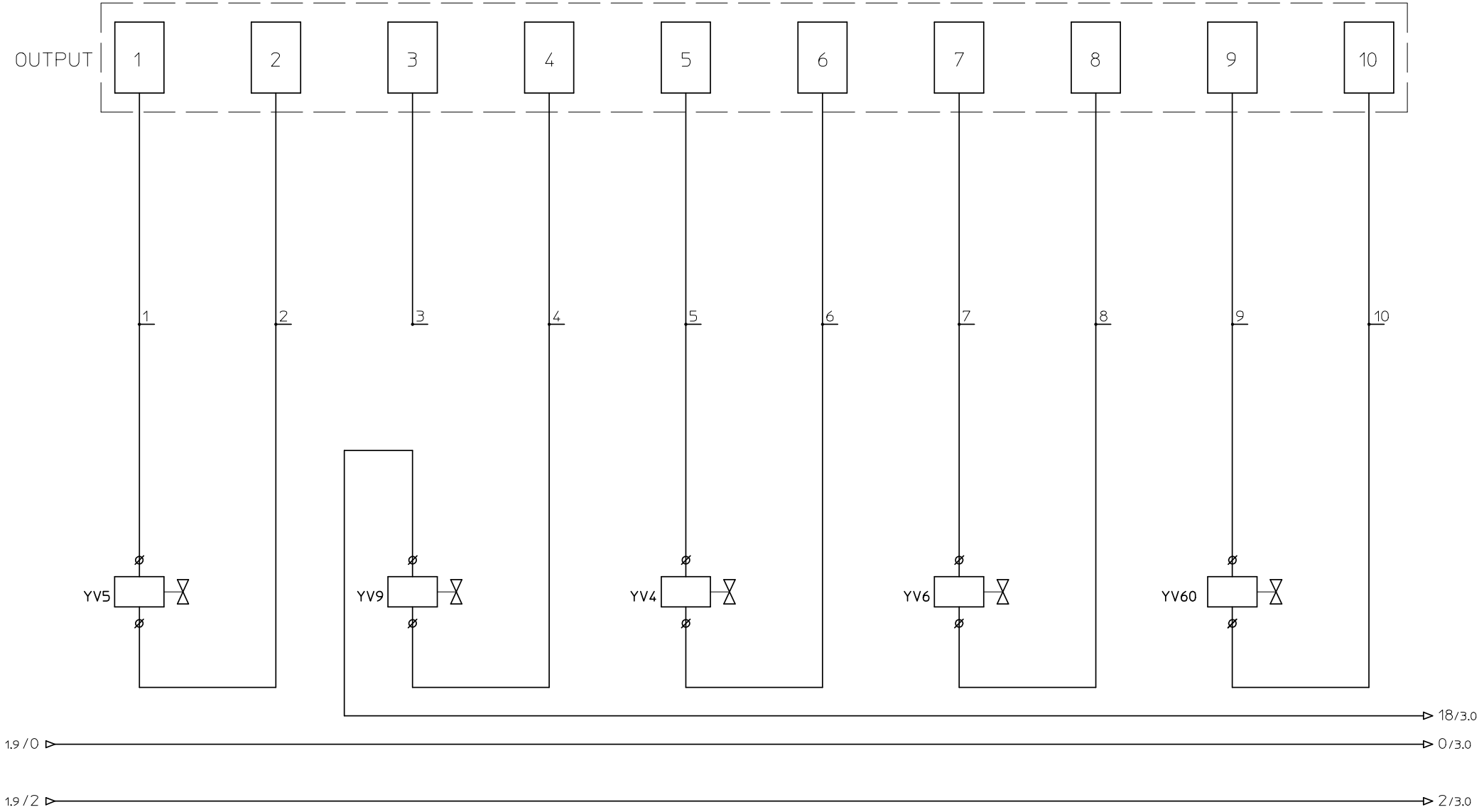
Modello: VERTICALI

Macchina: NTS 315 - NTM 350S

N° Schema /

Revisione

Foglio 1 di 5



Rev.	Modificato	C./Appr.	Data	Descrizione

DENOMINAZIONE: Schema elettrico di comando OUTPUT

Modello: VERTICALI

Macchina: NTS 315 - NTM 350S

Data 29/03/2016

Firma *Andrea Scremin*

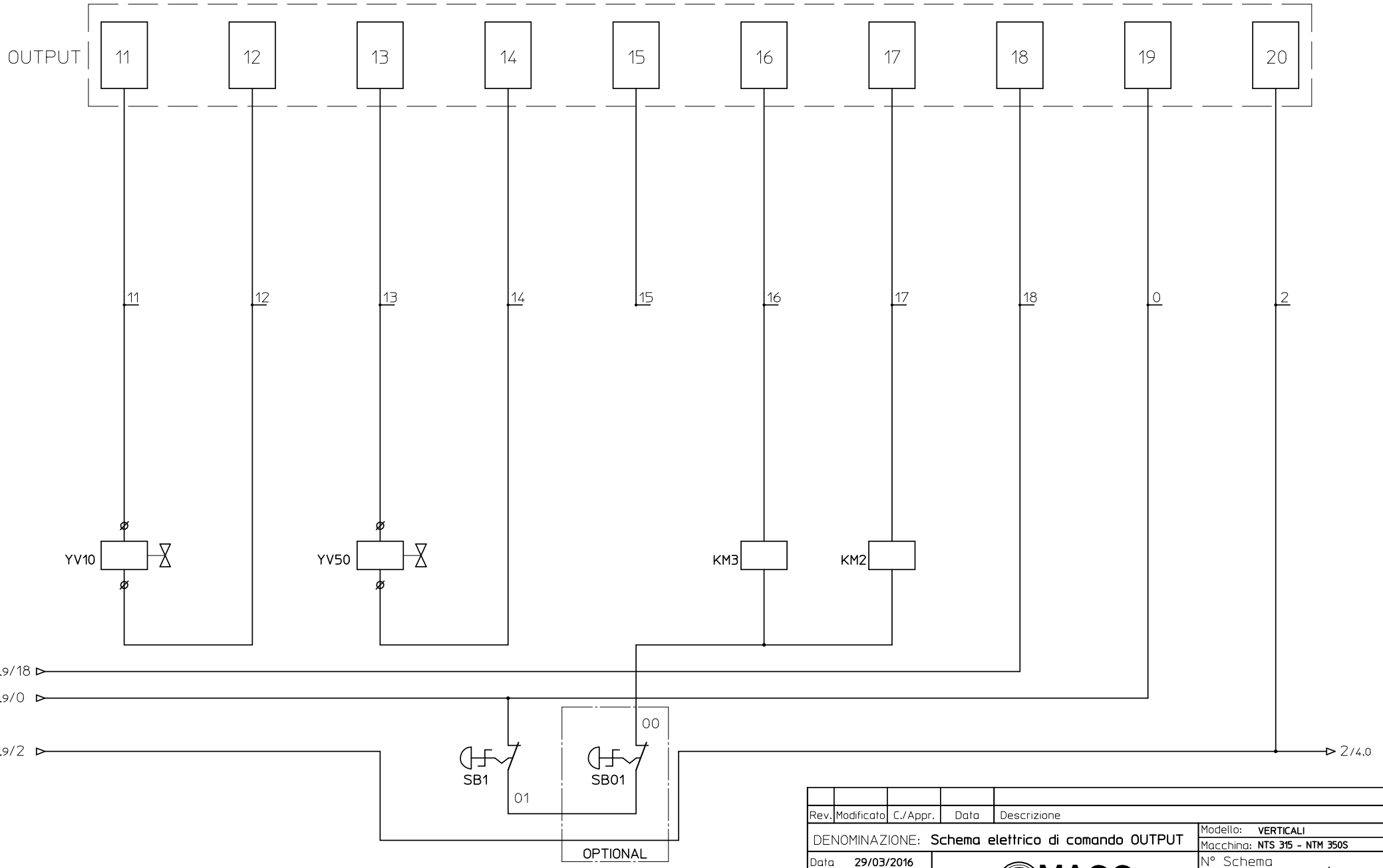
Contr./Appr.

MACC Schio

N° Schema /

Revisione

Foglio 2 di 5



Rev.	Modificato	C./Appr.	Data	Descrizione

DENOMINAZIONE: Schema elettrico di comando OUTPUT

Data 29/03/2016

Firma *Andrea Scremin*

Contr./Appr.

MACC Schio

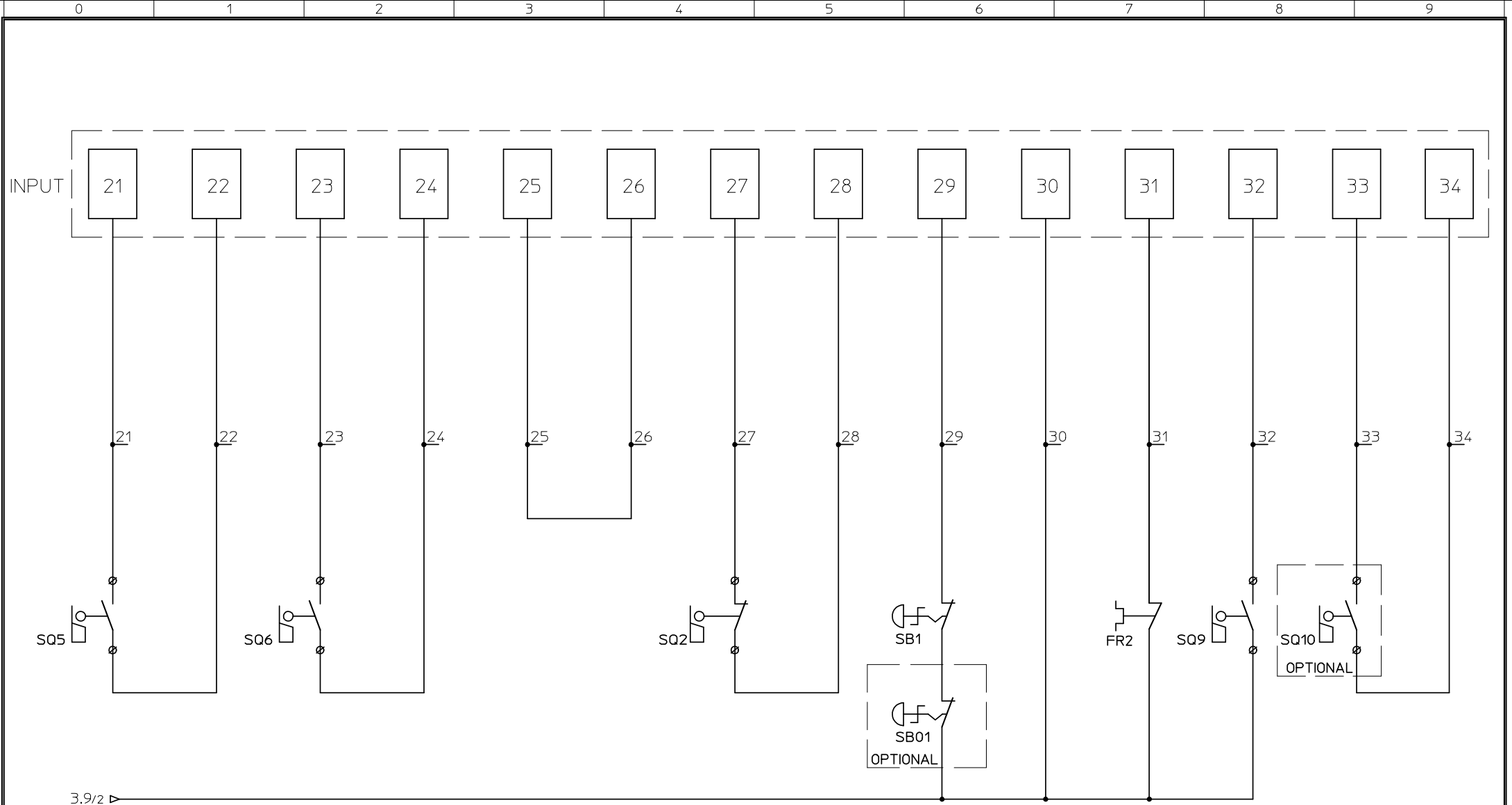
Modello: VERTICALI

Macchina: NTS 315 - NTM 350S

N° Schema /

Revisione

Foglio 3 di 5



Rev.	Modificato	C./Appr.	Data	Descrizione

DENOMINAZIONE: **Schema elettrico di comando INPUT**

Data **29/03/2016**

Firma *Andrea Scremin*

Contr./Appr.

MACC Schio

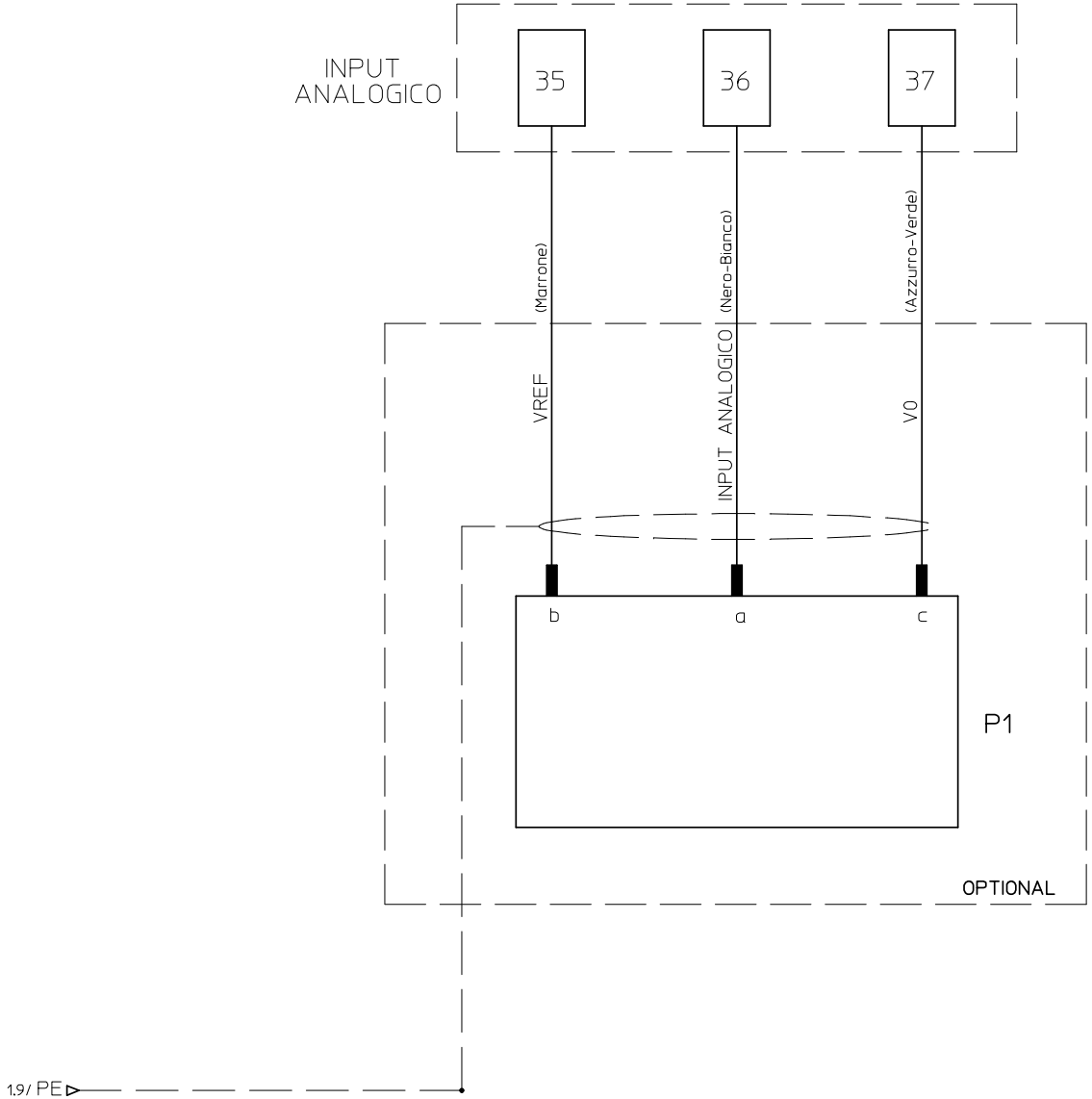
Modello: **VERTICALI**

Macchina: **NTS 315 - NTM 350S**

N° Schema /

Revisione

Foglio 4 di 5



Rev.	Modificato	C./Appr.	Data	Descrizione

DENOMINAZIONE: Schema INPUT analogico

Modello: VERTICALI

Macchina: NTS 315 - NTM 350S

Data 29/03/2016

Firma *Andrea Scremin*

Contr./Appr.

MACC Schio

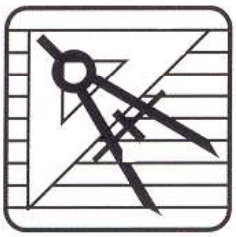
N° Schema /

Revisione

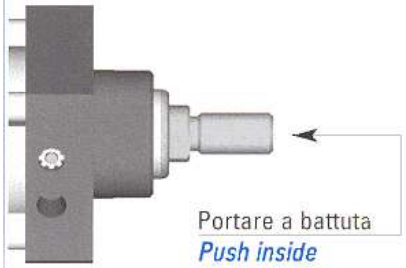
Foglio 5 di 5



Istruzioni per il rabbocco dell'olio nei cilindri testa - Instructions to oil Top-Up head cylinders



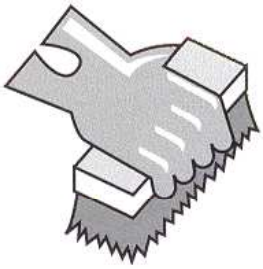
Assicurarsi che lo stelo del cilindro sia a battuta in posizione "tutto dentro".
Making sure cylinder rod is completely inside.



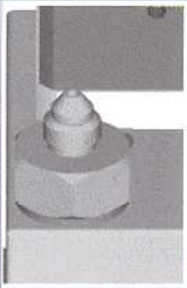


Svitare il tappo della valvola di caricamento.
Unscrewing the filling valve cap.



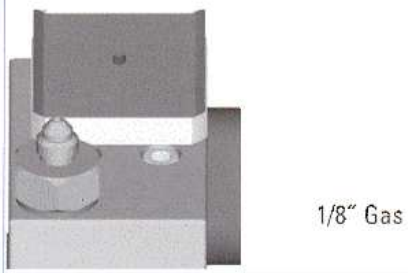


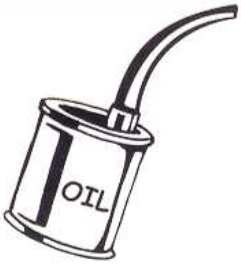
Controllare che sull'imbocco e/o sul filetto della valvola di caricamento non vi siano impurità.
Checking filling valve cap have not dust or dirty.



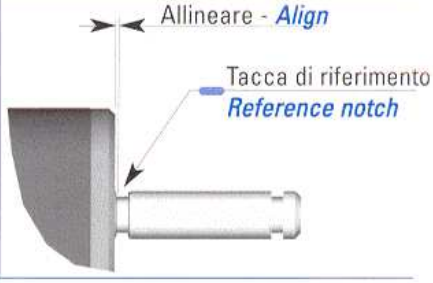


Avvitare il beccuccio della pompa, che s'intende utilizzare, alla valvola, che ha un filetto di 1/8" Gas.
Screwing selected pump lip to the valve.
Valve thread is 1/8" Gas.





Immettere olio fino a che la tacca incisa nello stelo del compensatore, non si allinea al tappo del compensatore
Introducing oil until the oil cylinder rod notch aligns to cylinder oil cap.



CONTROLLATO IL:	18/10/2021
DA:	
REV.:	0