



Instruções de manutenção

DECANTER

Z8E-4/401 SP 4.12

Máquina nº: 200041705
200042948
200043875
200043982

Projecto nº: N1/00100

Revisão 2

Tradução do original Instruções de manutenção

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Instruções de segurança

Instruções genéricas

1. Retesar/Renovar correias
2. Desmontar/Montar mecanismo de parafuso sem-fim
3. Desmontar/Montar rotor
4. Desmontar/Montar parafuso sem-fim
5. Desmontar/Montar rolamento do sem-fim, lado de entrada
6. Desmontar/Montar rolamento do sem-fim, lado de accionamento
7. Desmontar/Montar rolamento do rotor, lado de accionamento
8. Desmontar/Montar rolamento do rotor, lado de entrada
9. Engrenagem
10. Desmontar/Montar disco de descasque
11. Desmontar/Montar o disco de separação de fases

Suplemento:

TI-SRV-0032A

Instruções de operação dos aparelhos elevadores

Desenhos e listas das peças de reposição

Instruções de segurança

**Tenha sempre cuidadosamente em conta
as seguintes instruções de segurança!**

Perigos residuais

Com anterioridade à expedição, à máquina foram testadas pelo fabricante a segurança e a perfeita operação.

Não obstante, qualquer operação errada e cada abuso podem ter por consequência perigos e riscos para

- a integridade física e a saúde dos operadores
- a máquina e outros equipamentos do utilizador ou de terceiros.

Explicação dos símbolos utilizados da documentação

A presente documentação preceve com os seguintes símbolos de eventuais perigos e riscos:



PERIGO

Este símbolo adverte de eventuais situações perigosas.
Sendo desrespeitadas as instruções de segurança
obrigatórias, podem ser provocadas lesões gravíssimas e
até a morte.



AVISO

Este símbolo adverte de eventuais situações perigosas.
Sendo desrespeitadas as instruções de segurança
obrigatórias, podem ser provocadas lesões graves e
gravíssimas ou até a morte.



CUIDADO

O símbolo assinala situações que podem ser a causa
de ligeiros ferimentos.
Mais avisa de possíveis danos materiais.

Instruções de segurança

Verificar a segurança da máquina

- Antes de colocar a máquina em andamento, verificar a integridade numérica e o perfeito funcionamento dos aparelhos e dispositivos de segurança e protecção.
- Todos os controlos devem ser executados escrupulosamente conforme indicado no item „Esquema de manutenção“.
- Obedecer em todo o caso aos prazos legais de inspecção e revisão! Veja informações mais pormenorizadas no item „Esquema de manutenção“.

Responsabilidades

A responsabilidade de **Flottweg** estende-se exclusivamente ao volume de entrega. Os serviços e equipamentos constam no pedido e na confirmação da encomenda. Do volume de entrega fazem parte, por exemplo:

- Diversos componentes, tais como centrífuga incluindo motor, equipamento eléctrico, vários aparelhos e peças (bombas, transportadores, tubos, válvulas, torneiras, etc.) ...
- Serviços, tais como a instalação, o comissionamento, o treinamento do pessoal do adquirente, a cablagem ...

Emprego conforme o fim de utilização acordado

A máquina serve unicamente para separar líquidos e sólidos, e está especialmente concebida para a matéria especificada nas características técnicas.

É proibido tratar com a máquina ou utilizar para fins de limpeza interior:

- Líquidos com densidade superior ou temperatura superior ou inferior aos valores indicados na chapa de características
- Líquidos com impurezas metálicas
- Líquidos de efeito corrosivo sobre os materiais da máquina
- Líquidos combustíveis ou perniciosos/nocivos à saúde.
- Produtos com corpos estranhos minerais, com uma dimensão superior a 3 mm
- Produtos com partículas, com uma dimensão superior a 10 mm
- Produtos com fibras ou similares, com um comprimento superior a 30 mm

Por razões de segurança é rigidamente proibido proceder a reformas ou modificações não autorizadas pelo fabricante.

Os parâmetros indicados da chapa de características da máquina (p. ex. velocidade máxima, densidade admissível) nunca podem ser excedidos para não prejudicar a segurança da máquina.

A máquina não pode ser utilizada sem que apresente condições técnicas e operacionais impecáveis.

Antes de recolocar a máquina em funcionamento, este deverá ter eliminada a causa de perturbações.

Cada emprego da máquina ou do equipamento que discorda das condições admissíveis acima referidas e dos regulamentos e preceitos de segurança não está em conformidade com o fim de utilização e fica interdito.

A Flottweg alerta para o facto de que alterações por conta própria no código-fonte, mesmo que em pequena escala, podem resultar em falhas imprevistas significativas e danos na máquina e no seu ambiente circundante.

A realização de alterações ou a remoção, de avisos de direitos autorais ou de licença no código-fonte, sem a autorização prévia da Flottweg, pode resultar em processos civis e judiciais.

Além disso, em caso de utilização do código-fonte, faz-se referência às condições-quadro da lei alemã dos direitos autorais.

Instruções de segurança

Perigos e riscos inerentes à máquina



AVISO

As peças em rotação são susceptíveis de contundir ou separar dedos e mãos.

Enquanto em operação, a centrífuga deve ter as coberturas protectoras devidamente montadas!

O risco mais grave da máquina é o rotor muito rápido e o motor de accionamento. O rotor, a tracção por correia e o motor podem contundir ou separar dedos e mãos. Eis porque a tampa e a cobertura protectora podem ser retiradas só quando o rotor se encontra em total repouso.

Antes de iniciar trabalhos de manutenção ou desmontagem deve ser verificado que o rotor está parado e segurado contra ligação accidental e não autorizado.



DANGER

Os sólidos são expulsos com grande ímpeto pela parte inferior da caixa.

Perigo de lesão para dedos e mãos.

Nunca meter a mão na caixa!

Para tirar uma prova de sólidos, utilizar sempre uma ferramenta apropriada.

O poço de sólidos, fechado, deve ser conduzido até ao transportador ou reservatório colector.

Desta forma será possível reduzir a emissão sonora e impedir que fragmentos projectados (grainhas, pequenas pedras, etc.) possam provocar ferimentos!



AVISO

Nos sistemas hidráulicos (em caso de componentes defeituosos) pode haver fugas de óleo em projecção que se encontra sob alta pressão.

Tais fugas são capazes de causar ferimentos nos olhos ou intoxicações.

Em caso de contacto da pele ou dos olhos com o óleo hidráulico devem ser realizadas as medidas referidas nas Fichas de segurança entregues.



CUIDADO

A centrifugadora pode-se aquecer ao trabalhar sem produto a temperaturas elevadas sem autorização.

Por isso, a centrifugadora só pode funcionar num máximo de duas horas sem produtos.

Após funcionar durante duas horas:

- ou o accionamento do tambor desliga-se
- ou a rotação do tambor reduz-se para os 30%
- ou efectuar o processo de lavagem para arrefecer

Instruções de segurança

Comportamento no caso de emergência

Em casos de emergência, a máquina ou o equipamento tem que ser desligado de imediato.

Em caso de incêndio, a entidade operadora deve assegurar a desconexão imediata da corrente elétrica e outras medidas de proteção contra incêndios. Em caso de danos extremos, as centrifugadoras de alta velocidade podem ficar muito quentes e, por isso, incendiar materiais combustíveis.

Depois de uma paragem de emergência ou falha de energia, a máquina só pode ser reiniciada manualmente. Não é permitido um rearranque automático.

Antes de voltar a pôr a máquina a operar, esta deve ter eliminada a causa de todas as perturbações.

Trabalhos de manutenção e desmontagem

O próprio utilizador da máquina pode executar trabalhos de manutenção e desmontagem só conforme as instruções e no âmbito do volume descrito neste Manual. Todos os serviços de manutenção e trabalhos de desmontagem que vão para além do volume descrito neste Manual podem ser levados a cabo exclusivamente por pessoas autorizadas por **Flottweg**.

É proibida a realização de alterações, reestruturações ou conversões na máquina sem a autorização expressa da empresa **Flottweg**. A utilização de peças de substituição original e de acessórios autorizados da **Flottweg** são uma garantia de segurança. A utilização de outras peças anula a responsabilidade pelas consequências associadas.

Quaisquer fugas de líquidos ou lubrificantes, óleo hidráulico e outras substâncias susceptíveis de contaminar os recursos aquáticos nunca podem penetrar na terra ou nos esgotos.

Ao renovar as cargas de óleo ou remover o excesso de massa lubrificante ou lubrificantes envelhecidos, deve ter-se em atenção especial as condições de protecção ambiental.

Todas as fugas devem ser imediatamente detidas mediante material absorvente adequado. Em caso nenhum podem ser deixadas ferramentas ou outros objectos sobre a máquina. Podem chegar debaixo das coberturas, ser agarrados por peças em rotação e lançados fora.

Antes de dar início aos trabalhos de manutenção ou desmontagem, deve-se sempre

- desligar a máquina
- esperar até a máquina ter parado totalmente (demora até 45 minutos conforme tipo)
- controlar se o rotor está parado (p. ex. ventilador no motor primário)
- **segurar a máquina contra ligação acidental**
(p. ex. pôr um cadeado no interruptor principal)

Operadores aptos

Pessoas com menos de 18 anos de idade não podem operar a máquina.

Todos os trabalhos de operação e manutenção precisam de ser executados de acordo com a legislação e os regulamentos aplicáveis de segurança.

Pessoas que lidarem com a máquina deverão ter lido e entendido este Manual de operação e estar inteiradas da operação e manutenção de toda a instalação.

Trabalhos em componentes e circuitos eléctricos não poderão ser executados senão por electricistas autorizados e de acordo com a legislação e os regulamentos aplicáveis.

A instalação precisa de ser protegida mediante interruptor de chave contra ligação acidental e não autorizada.

Instruções de segurança

Emissões sonoras

O nível de pressão sonora inherente a máquina não pode ser globalmente indicado, uma vez que depende do tamanho da máquina e da velocidade pré-regulada.

Os dados exactos constam do quadro de pressão sonora.

Equipamento de protecção individual de acordo com o Regulamento de prevenção de acidentes

Durante a operação normal da máquina, os operadores devem usar



calçado adequado antiescorregadio



auscultador antissonoro a partir de 85 dB(A)

Durante a execução de trabalhos de manutenção e reparação, o pessoal encarregado deve usar



capacete de segurança



luvas adequadas



calçado adequado

Local de operação

O local de operação da máquina deverá satisfazer às condições definidas nos documentos do projecto.

Exclusão de responsabilidade

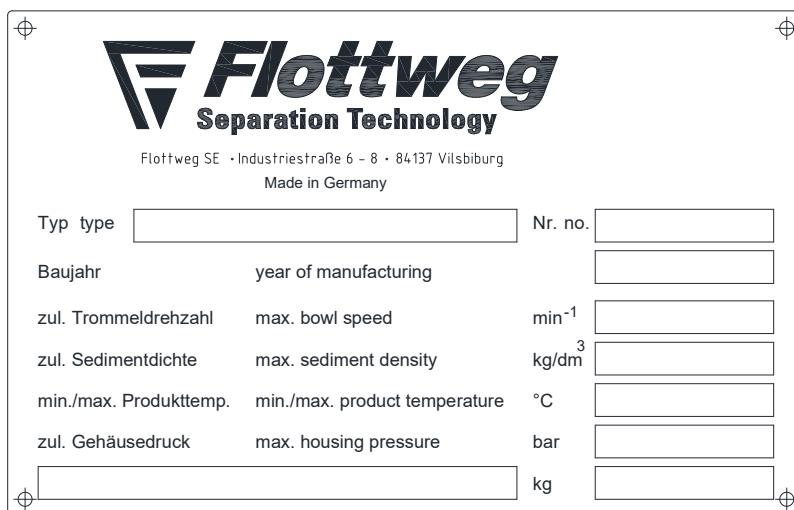
A entidade operadora é responsável por todos os riscos resultantes no lado operacional, como, por exemplo, riscos:

- derivados do produto ou do agente de limpeza.
- resultantes da instalação ou do ambiente circundante da centrífuga.
- condicionados pela falta de conhecimentos especializados ou competências do pessoal.
- que podem ocorrer devido à alimentação (eletricidade, água, ar comprimido...).
- que ocorrem devido a peças da instalação não fornecidas pela FW.
- que ocorrem devido à falta de manutenção e conservação.

Instruções de segurança

Chapa de características

A chapa de características mostra todas as informações de identificação da centrífuga, encontrando-se fixa ao leito do rotor.



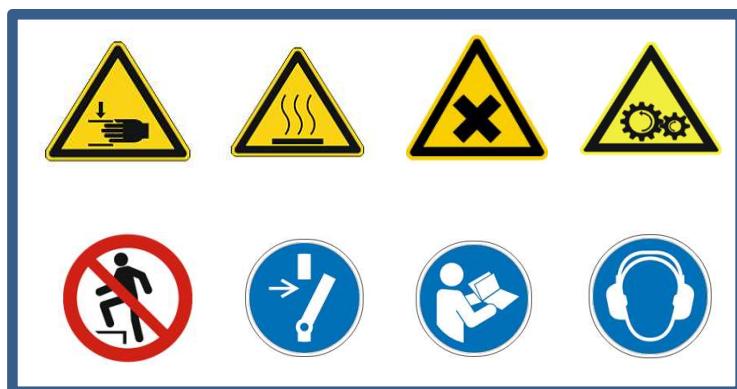
Explicação das marcações/designação:

Designação	Significado
Typ	Modelo da máquina
Nr.	Número da máquina
Baujahr	Ano de construção da máquina
Zul. Trommeldrehzahl	velocidade de rotação do tambor máxima admitida em rpm
Zul. Sedimentdichte	densidade dos sedimentos máxima admitida
Min./max. Produkttemperatur	Temperatura máxima e mínima do produto admitida
Zul. Gehäusedruck	Pressão da caixa máxima admitida
kg	Peso total (tambor vazio)

Instruções de segurança

Símbolos de aviso e segurança

Os símbolos de aviso que advertem de perigos especiais encontram-se ao lado da chapa de características.



Avisos na máquina

Explicação das marcações:

	Aviso de risco de ferimentos nas mãos
	Aviso de superfície quente
	Aviso de substâncias prejudiciais para a saúde ou irritantes
	Aviso de perigo de arrastamento
	Proibido subir
	Desligar da corrente antes de trabalhos de manutenção ou de reparação
	Cumprir as instruções do manual
	Usar protetores auriculares

Instruções de segurança

O relâmpago adverte de tensão eléctrica perigosa. Quaisquer trabalhos nas peças percorridas por energia eléctrica poderão ser executados exclusivamente por electricistas qualificados e autorizados.



A seta indica o sentido de rotação correcto do motor e tambor.
A rotação no sentido errado leva ao funcionamento incorrecto da centrífuga, podendo ter por consequência a sobrecarga de componentes e/ou peças.



Autocolantes com valores de frequência eléctrica, no motor.
O dimensionamento da tracção por correias garante que com a frequência indicada é atingida a velocidade de operação. Qualquer frequência excessiva redundaria no excesso da velocidade admissível do tambor.



Instruções genéricas

As instruções de manutenção **Flottweg** permitem a um maquinista concretizar sem problemas os trabalhos descritos depois de instruído devidamente sobre a operação da centrífuga.

1. Antes de dar início aos trabalhos de manutenção ou desmontagem, deve-se sempre
 - desligar a máquina
 - esperar até a máquina ter parado totalmente (demora até 45 minutos conforme tipo)
 - controlar se o rotor está parado (p. ex. ventilador no motor primário)
 - segurar a máquina contra ligação accidental (p. ex. pôr um cadeado no interruptor principal)
2. As massas lubrificantes e óleos hidráulicos usados devem ser cuidadosamente recolhidos e eliminados em conformidade com a legislação de protecção ambiental, i. é, na base dos regulamentos legais aplicáveis.
3. Durante cada montagem devem ser verificadas e, se preciso, renovadas as juntas de vedação.
4. Podem ser utilizadas exclusivamente peças de reposição originais e genuínas **Flottweg**. Isto é extensivo a parafusos e outros elementos normalizados, já que em parte são indispensáveis materiais e resistências especiais para garantir a segurança da centrífuga em funcionamento.
5. Levantamento seguro da centrífuga
A elevação da centrífuga ou das componentes dela requer o emprego de aparelhos elevadores e utensílios de fixação que apresentem capacidade de carga suficiente e reúnam condições técnicas impecáveis.
6. Limpar a máquina aquando de trabalhos de manutenção
Depois de desmontadas, todas as peças da máquina precisam de ser minuciosamente limpas. Ponha os componentes sobre uma base limpa e macia (tampo de madeira) para prevenir danificações nas superfícies ou em ajustes forçados ou com folga. Tapar conjuntos funcionais logo a seguir à desmontagem para impedir depósitos de sujidade.
7. Montagem dos rolamentos
Untar com massa lubrificante os rolamentos anteriormente à montagem. Para facilitar a montagem, aquecer os rolamentos a 125°C (temperatura máxima) e enfiar no veio até encontrarem resistência.
8. Tenha em atenção as marcas de calibragem
O rotor da centrífuga foi calibrado aquando do fabrico. Para evitar que após uma reparação as peças sejam montadas de forma desajustada, têm gravadas marcas posicionais na sua circunferência. Estas marcas devem ser tidas em conta na montagem do cubo, da camisa, prolongamento, tampa e flange do tambor.



Tenha em atenção as marcas de calibragem durante a montagem!
Qualquer montagem errada provoca graves desequilíbrios que têm por consequência danos nos rolamentos ou a destruição de componentes da máquina.

Instruções genéricas

9. Binários mecânicos dos parafusos

Todos os parafusos têm de ser apertados com o respectivo binário mecânico.



Os parafusos de segurança marcados no texto ou nos desenhos com o símbolo devem ser verificados com uma chave dinamométrica. O binário necessário consta da tabela, podendo ser determinado com a ajuda do diâmetro e da qualidade do parafuso (veja cabeça do parafuso).

Os parafusos devem ser montados depois de lubrificados a não ser que estas instruções ou os desenhos exijam uma montagem com cola para os immobilizar.

Binários mecânicos dos parafusos [Nm]								
	A4-70 1.4462	8.8 A4-80	10.9	12.9	1.4529	2.4605	1.4501	2.4668 1.4501-S
M 6	8	10	15	17	5	6	9	13
M 8	18	24	35	40	12	14	22	30
M 10	40	50	70	80	26	30	45	65
M 12	60	80	120	140	40	45	70	100
M 16	150	200	280	330	100	110	180	250
M 20	300	400	550	650	200	230	350	500
M 24	500	670	950	--	330	380	600	800
M 30	--	1350	--	--				
M 36	--	2000	--	--				

Binários mecânicos dos parafusos [foot pound]								
	A4-70 1.4462	8.8 A4-80	10.9	12.9	1.4529	2.4605	1.4501	2.4668 1.4501-S
M 6	6	7	11	13	4	5	7	10
M 8	13	18	26	30	9	10	16	22
M 10	30	40	50	60	20	22	35	50
M 12	45	60	90	100	30	35	50	70
M 16	110	150	210	240	70	80	130	180
M 20	220	300	400	480	150	170	260	360
M 24	370	500	700	--	250	280	430	600
M 30	--	1000	--	--				
M 36	--	1500	--	--				



PERIGO

Verificar regularmente a tensão das correias!

Correias insuficientemente esticadas podem sair da sua posição e provocar incêndios!

1. Retirar a protecção das correias.
2. Soltar os parafusos (1); Soltar a contra-porca (2); Tensionar as correias com a porca (3); Apertar a contra-porca (2). Verificar a tensão das correias (no caso de uma força de verificação de 75N, profundidade de impressão no centro de ambos os eixos, de acordo com a figura) Para substituir as correias, primeiro aliviar/substituir/tensionar.
3. Girar o rotor algumas rotações na transmissão e verificar novamente a tensão das correias.



CUIDADO

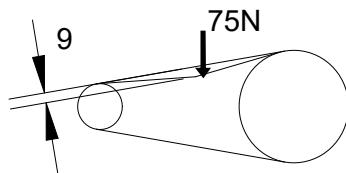
Nunca segurar nas correias em movimento para evitar contusões e a mutilação de dedos e mãos!

4. Apertar os parafusos (1).
5. Voltar a montar a protecção das correias.

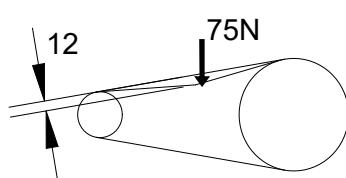
Atenção: Utilizar as correntes só em conjunto

(comprimento!) No caso de correias novas, verificar / retesar as correias após aprox. 3 horas de funcionamento.

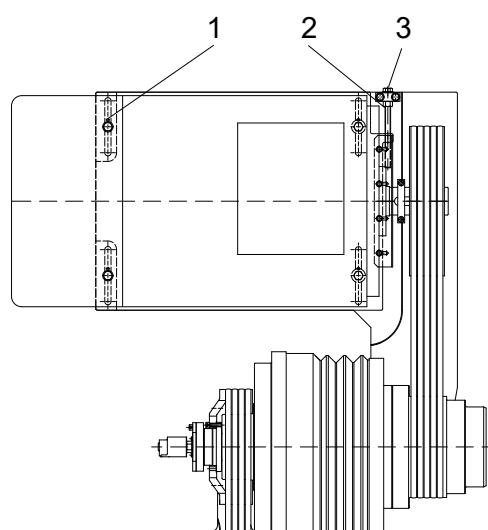
Accionamento do sem-fim



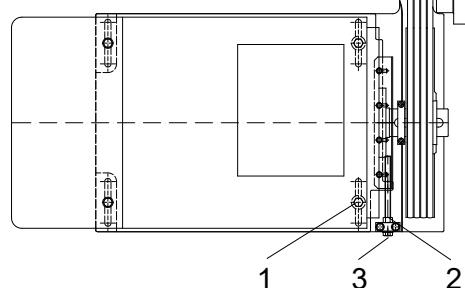
Accionamento do tambor



Accionamento do tambor



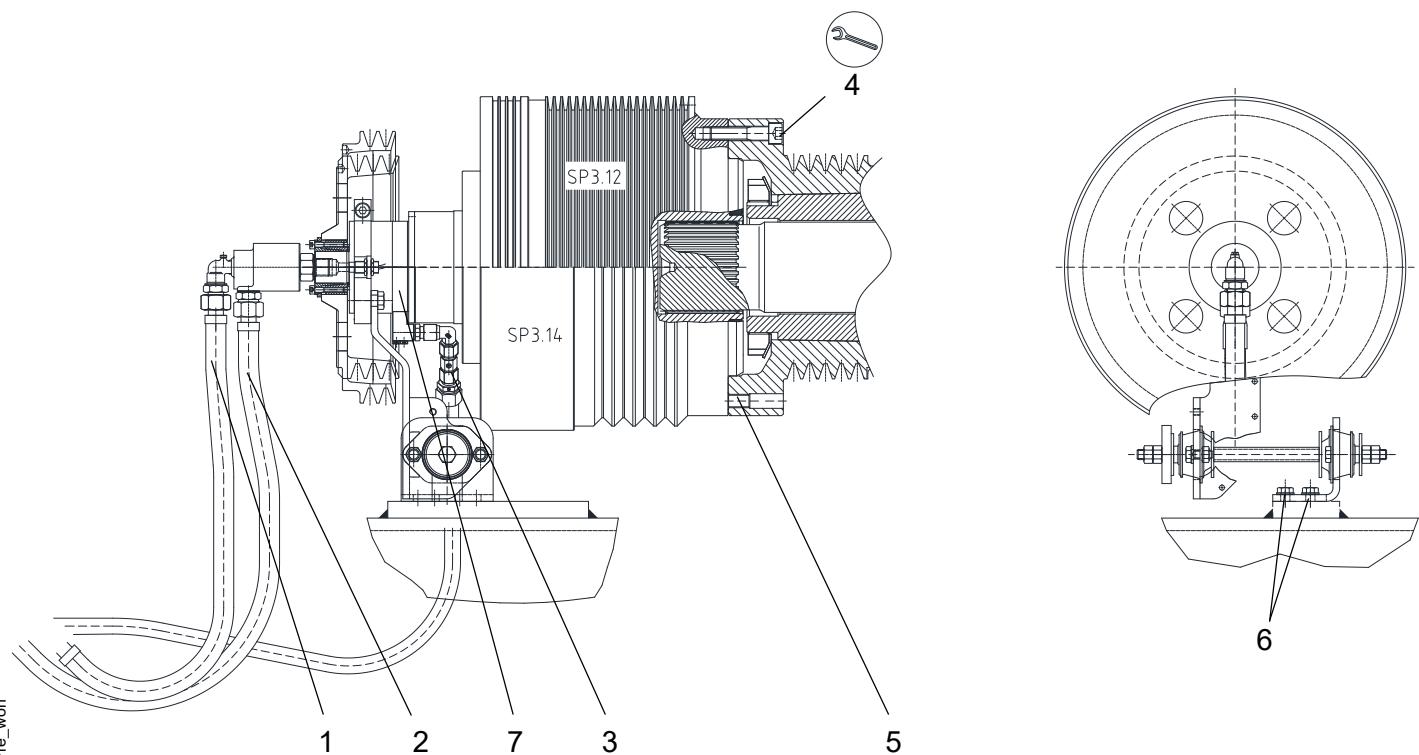
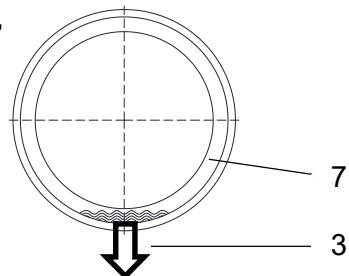
Accionamento do sem-fim



1. Retirar a cobertura protectora.
2. Desmontar as condutas de lubrificação (1; 2; 3); acumular o óleo que sai num recipiente adequado; fixar as extremidades em lugar alto para impedir o vazamento do reservatório.
3. Desesticar as correias (Capítulo 1) e retirar.
4. Desmontar o iniciador de velocidade de rotação.
5. Desapertar os parafusos (6).
6. Segurar a engrenagem mediante cabo de transporte e guindaste. Desapertar os parafusos (4); se preciso, afastar os parafusos (5) e desmontar a engrenagem mediante os parafusos (4).
7. Monte o sistema de accionamento do sem-fim invertendo a ordem em que foi desmontado. Veja nas instruções de operação o ajuste dos iniciadores para a velocidade de rotação.

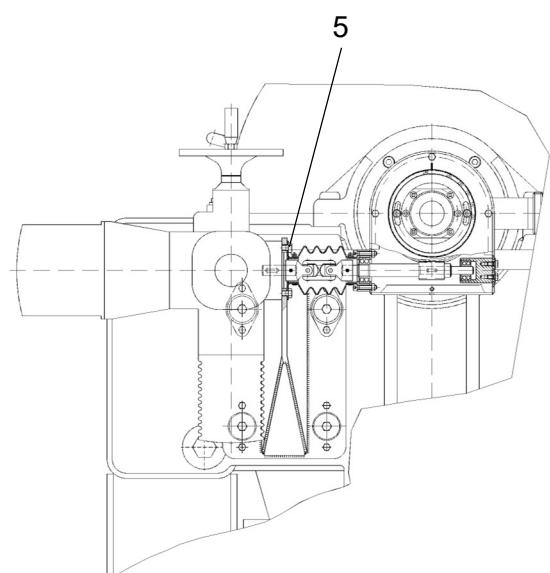
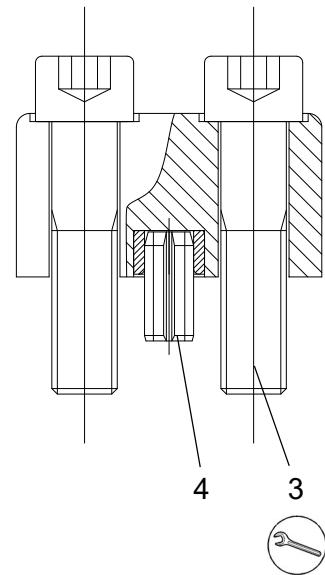
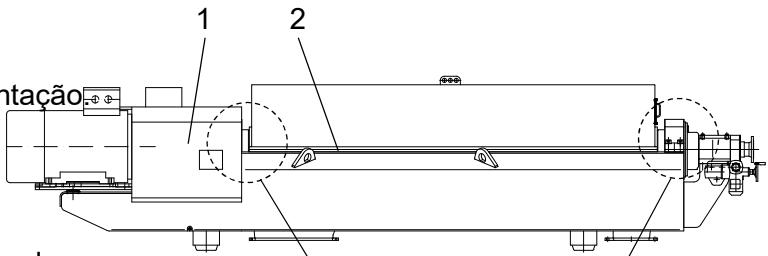
Atenção: Apertar os parafusos (4) com o binário mecânico prescrito;
Fixar os parafusos (5) com cola e enroscar até que esteja rente à superfície.

Atenção: Para evitar sujidade na máquina devido a fuga de óleo, o anel coleto (7) tem de ser montado de forma a que a ligação de óleo de fuga (3) fique posicionada no ponto mais em baixo, para permitir que o óleo de fuga possa sair.

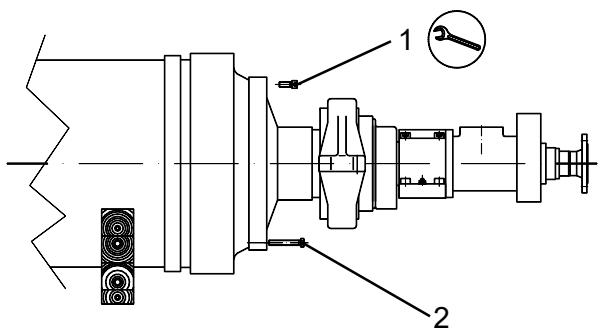


1. Desmontar tubos de produto e de alimentação.
2. Retirar a proteção da correia (1).
3. Soltar os parafusos sextavados no flange da carcaça (2); colocar a tampa da carcaça no guindaste e levantar.
4. Aliviar a tensão da correia e retirar (ver o capítulo 1).
5. Desmontar o acionamento da rosca (ver capítulo 2).
6. Desapertar os parafusos (5); retirar o atuador.
7. Desapertar os parafusos do apoio de mancal (3) em ambos os mancais principais.
8. Engatar o rotor com o dispositivo de elevação **Flottweg** ou corda deslizante suficientemente dimensionada no guindaste e levantar (observar o centro de gravidade do rotor).
9. Colocar o rotor na base de madeira e proteger contra rolagem.
10. A montagem ocorre na sequência inversa. O rotor está centrado através de luvas de fixação (4). Na colocação, cuidar para que as superfícies de ajuste não sejam danificadas pelas luvas de fixação.
11. Ajustar o atuador:
Controlar ou reajustar a parametrização do ajuste remoto do impulsor conforme as instruções de operação, cap. 2.4.

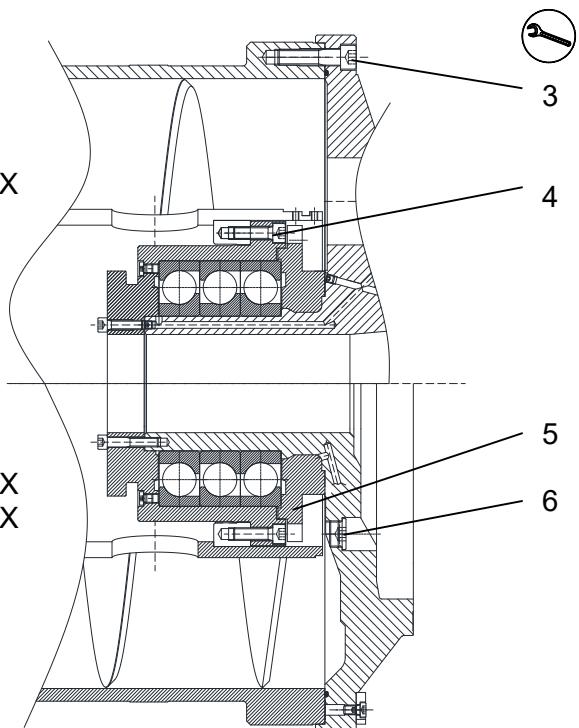
Observe: Apertar os parafusos (3) com o torque.



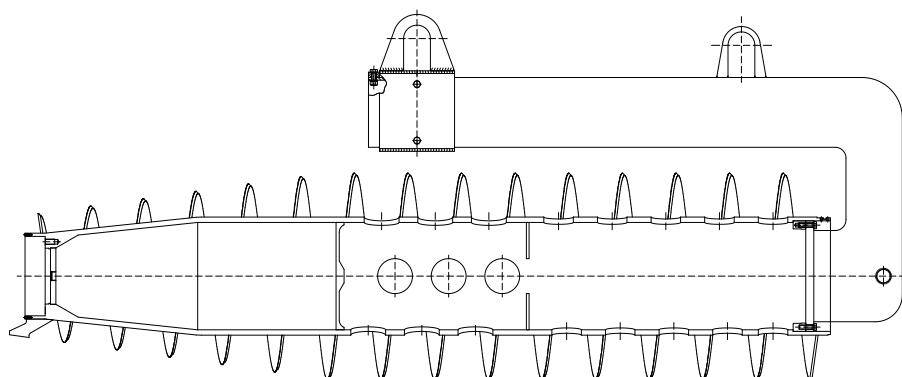
1. Desmontar o acionamento da rosca (ver capítulo 2).
2. Desmontar o rotor (ver capítulo 3).
3. Desapertar os parafusos (1); afastar o flange do tambor com o mancal e dispositivo impulsor (parafusos de extração (2) M16).
No Z8E-X/X5X é suprimido o passo 3.
4. Desapertar os parafusos (3), afastar a tampa do tambor com os parafusos de extração M12.
5. Desapertar os parafusos (4). Através do giro da tampa do tambor é possível acessar todos os parafusos através do furo (6).
6. Imobilizar a tampa do tambor com o guindaste e com os parafusos de extração M16 afastar na bucha do mancal (5).
7. Parafusar o dispositivo de elevação na rosca transportadora (ver o manual de instruções Dispositivo de elevação).
8. Levantar ligeiramente a rosca transportadora e retirá-la na horizontal.



Z8E-X/X5X

Z8E-X/X4X
Z8E-X/X0X

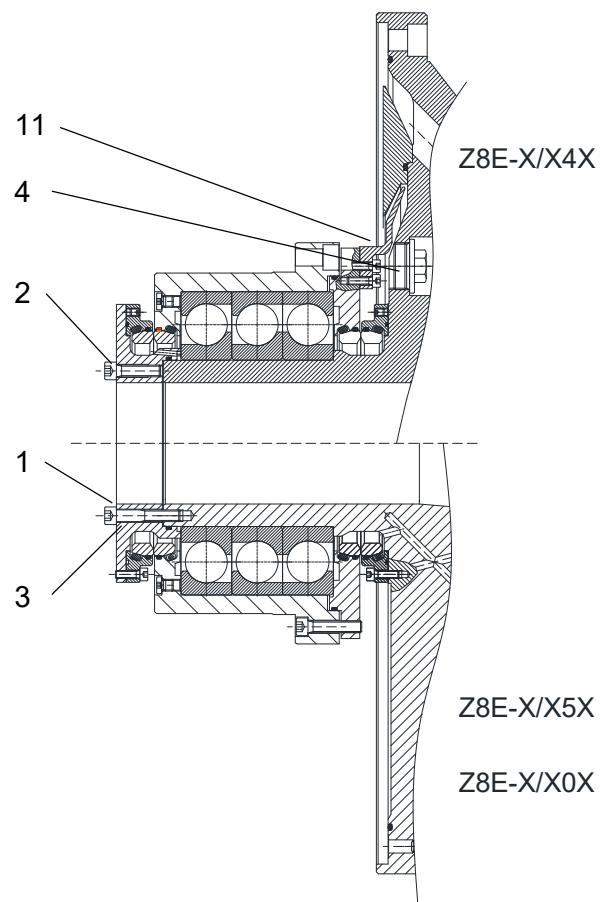
9. A montagem ocorre na sequência inversa.
Observe: Apertar os parafusos (3 e 1) com o torque.



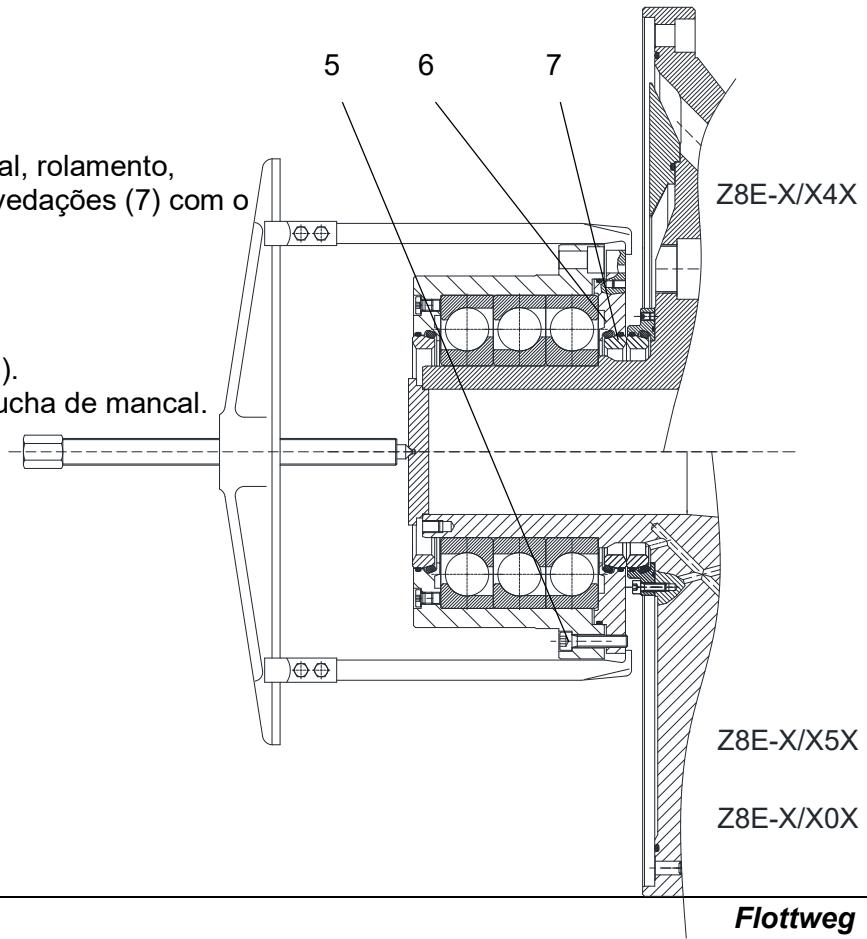
Desinstalar/instalar o rolamento da rosca transportadora no lado de alimentação

Capítulo 5.1

1. Desmontar o rotor (ver capítulo 3).
2. Desmontar a tampa do tambor e o apoio de mancal conforme descrito no capítulo 4 pontos 3-7.
3. Desapertar os parafusos (1), remover os parafusos (2) dos furos de extração e afastar o portador de vedação (3) com os parafusos M12.
4. No Z8E-X/X4X desinstalar o disco de separação de fases (ver capítulo 11)
Desapertar os parafusos (4) e desparafusar o mandril (11).



5. Remover a bucha de mancal, rolamento, portador de vedação (6) e vedações (7) com o extrator (ver a figura).
6. Desapertar os parafusos (5).
Remover o rolamento da bucha de mancal.

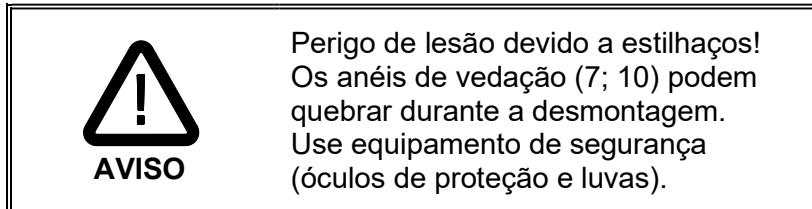


Desinstalar/instalar o rolamento da rosca transportadora no lado de alimentação

Capítulo 5.2

7. Desapertar os parafusos (8). Remover o portador de vedação (9) e a vedação (10).

8. Desmontar as vedações:



Ao desmontar os anéis de vedação (10), cobrir as peças com um pano. O pano impede que os estilhaços sejam projetados, caso um anel de vedação quebre.

Para desmontar os anéis de vedação (10) dos portadores de vedação (6; 9), bater o anel de vedação para fora com um martelo de plástico.

9. Montar as vedações conforme **TI-SRV-0032 A.**

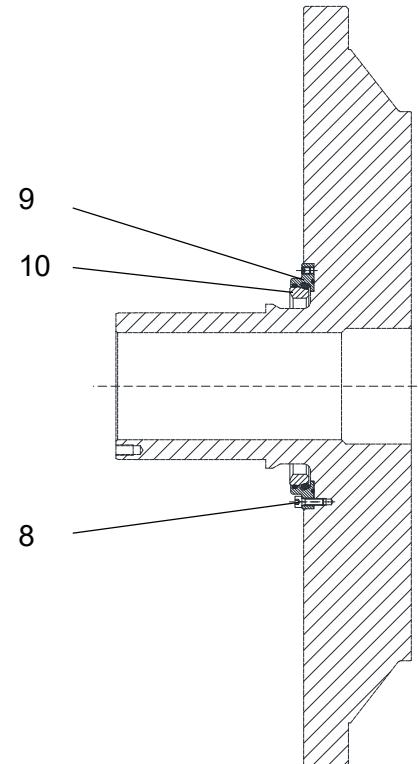
10. Montar o rolamento aquecido

Observe: Posição de montagem correta dos rolamentos, ver figura.

11. Encher o rolamento completamente com graxa.

12. A continuidade da montagem ocorre na sequência inversa.

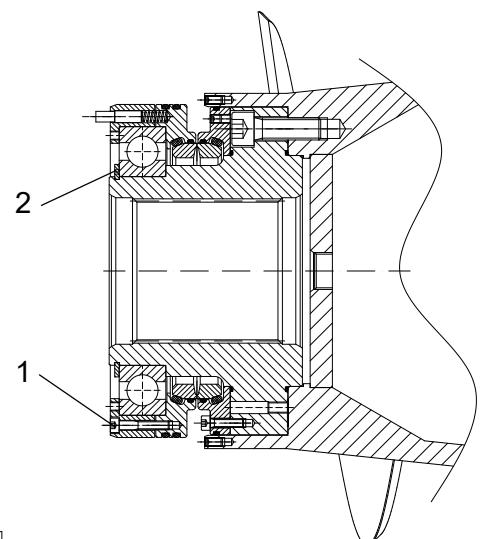
Observe: Fixar os pinos roscados com cola e rosquear de forma nivelada.



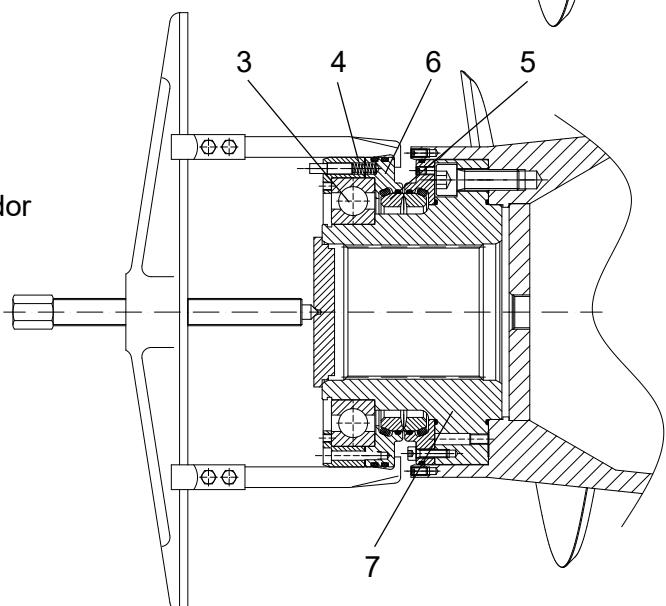
Desinstalar/instalar o rolamento da rosca transportadora no lado do acionamento

Capítulo 6.1

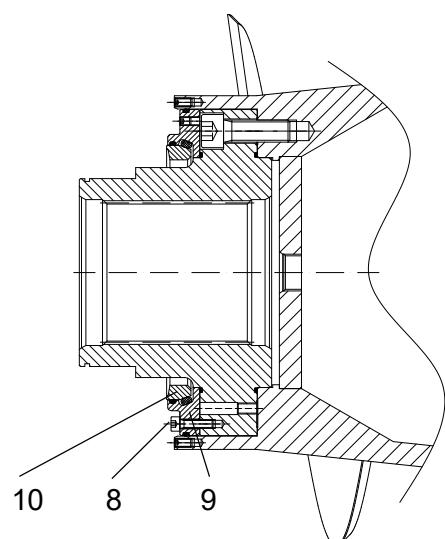
1. Desmontar o acionamento da rosca (ver capítulo 2).
2. Desmontar o rotor (ver capítulo 3).
3. Desmontar a rosca transportadora (ver capítulo 4).
4. Remover os parafusos (1) e o anel de retenção (2).



5. Remover o rolamento (3), a bucha do mancal (4), o anel de vedação (5) e o portador de vedação (6) do dispositivo de arraste (7).



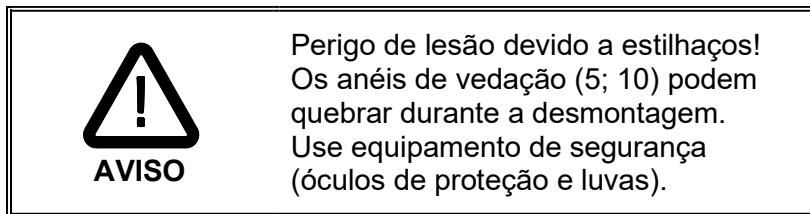
6. Desapertar os parafusos (8). Remover o portador de vedação (9) e o anel de vedação (10).



Desinstalar/instalar o rolamento da rosca transportadora no lado do acionamento

Capítulo 6.2

7. Desmontar as vedações:



Ao desmontar os anéis de vedação (5; 10), cobrir as peças com um pano. O pano impede que os estilhaços sejam projetados, caso um anel de vedação quebre.

Para desmontar os anéis de vedação (5; 10) dos portadores de vedação (6; 9), bater o anel de vedação para fora com um martelo de plástico.

8. Montar as vedações conforme **TI-SRV-0032 A.**

9. A continuidade da montagem ocorre na sequência inversa.

Observe: Montar o rolamento aquecido.

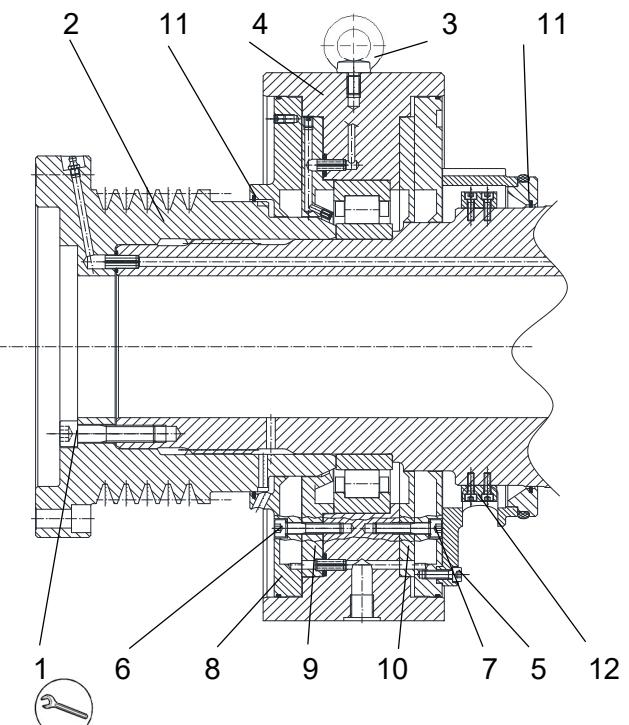
Encher o rolamento completamente com graxa.

Fixar os pinos roscados com cola e rosquear de forma nivelada.

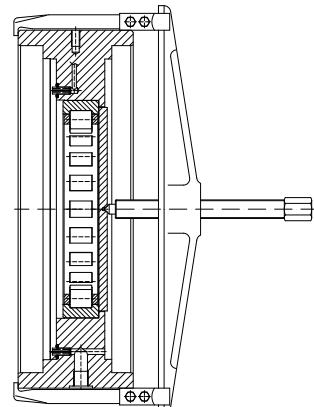
Desinstalar/instalar o rolamento do rotor no lado de acionamento

Capítulo 7

1. Desmontar o acionamento da rosca (ver capítulo 2).
2. Desmontar o rotor (ver capítulo 3).
3. Desapertar os parafusos (1), desparafusar o mandril (12) e retirar através da abertura de saída.
4. Engatar o flange de acionamento (2) com a corda deslizante no guindaste.
5. Afastar o flange de acionamento (2) (parafusos de extração M16).
6. Parafusar a cavilha com olhal (3) no apoio de mancal (4) e engatar no guindaste.
7. Remover o apoio de mancal com o rolamento, a tampa de mancal e o portador de vedação completamente do eixo.
8. Desapertar os parafusos (5); retirar o anel de proteção.
9. Desapertar os parafusos (6; 7); remover a tampa do mancal (8; 9; 10).



10. Afastar o rolamento do apoio de mancal com o extrator (ver figura).

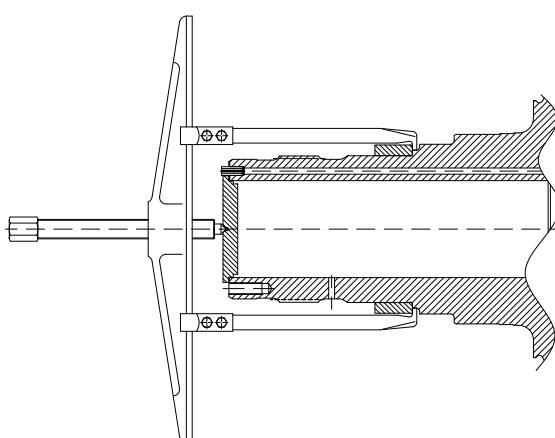


11. Aquecer o anel de rolamento interno e removê-lo do eixo com o extrator (ver figura).
12. Substituir os anéis de vedação do eixo (11); na montagem lubrificar o anel de vedação do eixo.

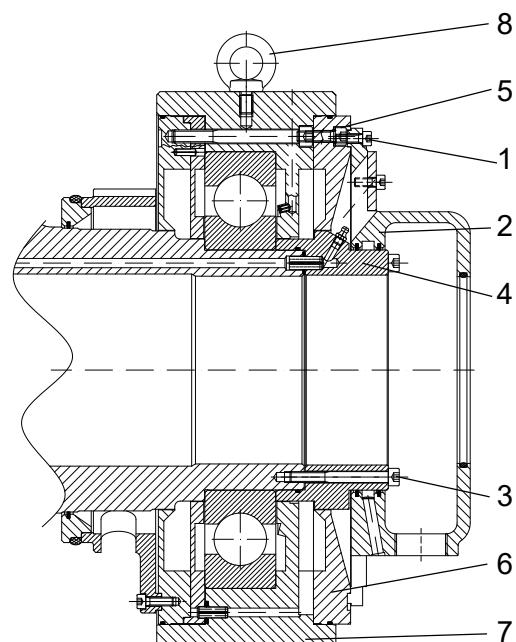
13. Montar o anel de rolamento interno aquecido.
14. Aplicar lubrificante do sistema de lubrificação central de forma completa em todo o anel de rolamento interno e elemento rolante, e montar o anel externo do rolamento com elementos rolantes no apoio de mancal.
15. Montar o apoio de mancal.
16. A continuidade da montagem ocorre na sequência inversa.

Observe: Aperte os parafusos (1) com o torque.

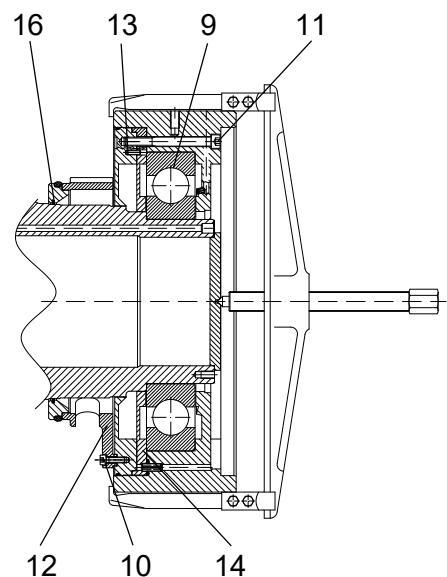
Fixar os pinos roscados com cola e rosquear de forma nivelada.



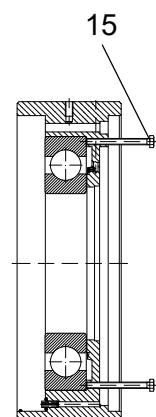
1. Desmontar o rotor (consultar cap. 3).
2. Desmontar disco de descasque (ver cap. 10).
3. Soltar os parafusos (1); Retirar o recipiente de recolha de fugas (2).
4. Soltar os parafusos (3); Pressionar o anel de retenção (4).
5. Soltar os parafusos (5); Retirar a tampa do rolamento (6).



6. Prender o apoio (7) com a cavilha com olhal M12 (8) no guindaste.
7. Retirar apoio (ver imagem).
8. Retirar o apoio do rolamento (7) com rolamento de esferas (9) (ver figura).
9. Soltar os parafusos (10; 11). Retirar o anel de protecção (12) e a tampa do rolamento (13; 14).
10. Retirar o rolamento de esferas (9) do apoio do rolamento (7) com parafusos de revelação (15).

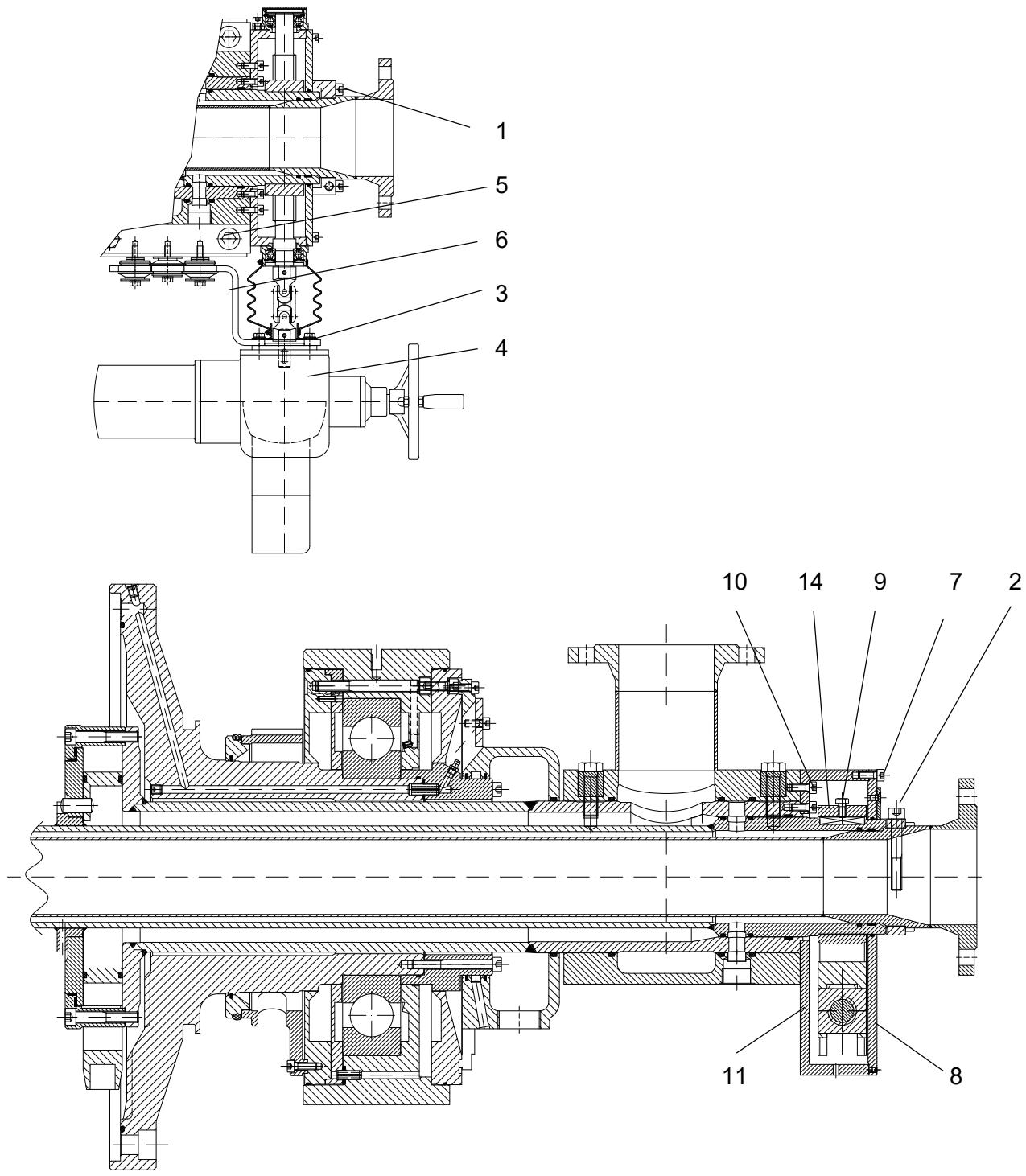


11. Substituir anéis vedantes do veio:
Trocar os anéis vedantes do veio (16).
12. Aplicar lubrificante da unidade central de lubrificação em todo o rolamento e montar.
13. A restante montagem é efectuada pela ordem inversa.



A engrenagem pode ser reparada exclusivamente pelo fabricante.
Os trabalhos de manutenção, tais como a mudança de óleo, encontram-se descritos no
Manual de operação.

1. Desmontar o rotor (veja Capítulo 3).
2. Tirar, mediante os parafusos de relevação, o flange, juntamento com o mancal e o dispositivo de descascamento (veja Capítulo 4, Item 1-6).
3. Desapertar os parafusos (1); extrair o tubo de entrada incluindo o suporte (não desapertar o parafuso (2)).
4. Desapertar os parafusos (3) e retirar o accionamento (4).
5. Desapertar os parafusos (5) e retirar o suporte (6).
6. Desapertar os parafusos (7) e retirar a tampa (8).
7. Desapertar os parafusos (9).
8. Desapertar os parafusos (10); Retirar o actuador (11).

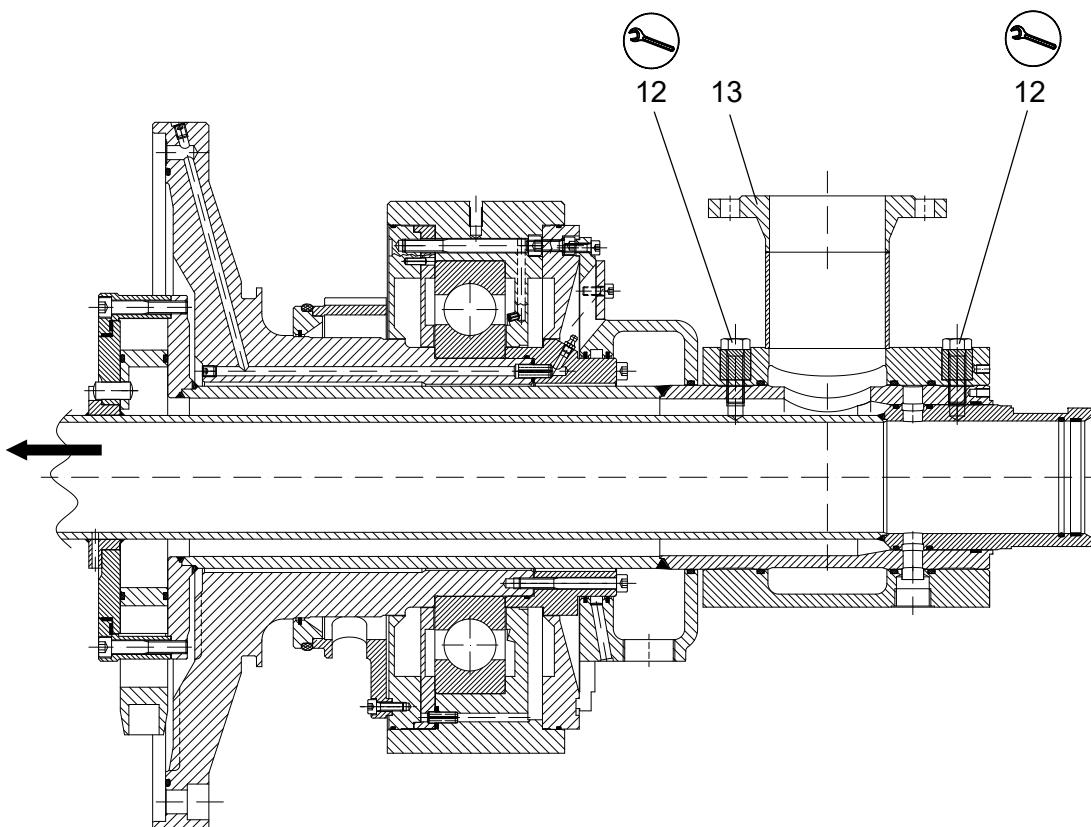


9. Desapertar os parafusos (12) Retirar o suporte (13).
10. Extrair no sentido indicado pela seta o disco de descasque e o tubo de capa.
11. Renovar as juntas vedantes.

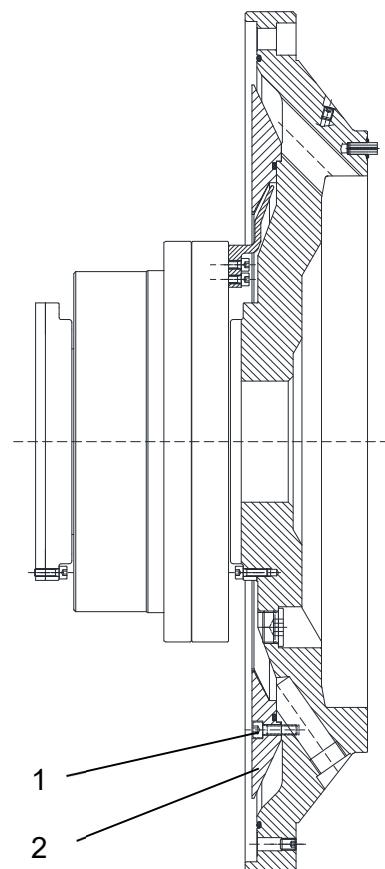
Na montagem dos discos de descasque, ter em atenção a montagem correcta das molas de ajuste (14).

Continuar a montagem na ordem inversa à desmontagem.

Atenção: Apertar os parafusos (12) com o binário exigido.



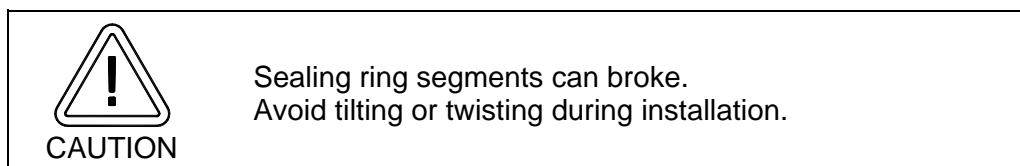
1. Desmontar o rotor (ver Capítulo 3).
2. Desmontar a tampa do tambor (ver Capítulo 5, ponto 1-4).
3. Desapertar os parafusos (1) e retirar o disco de separação de fases (2).
4. A restante montagem é efectuada pela ordem inversa.



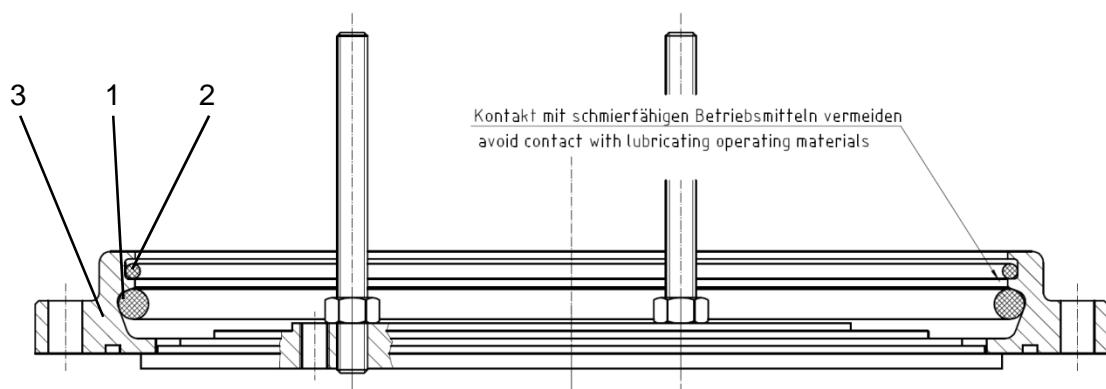
General information

The sealing is a slide ring seal with SiC-sealings for sealing rotating shafts.

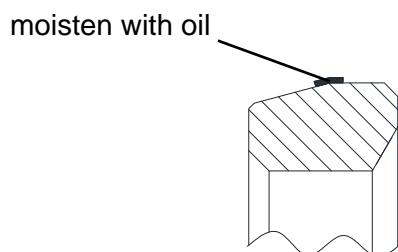
Assembly instruction of the sealing rings



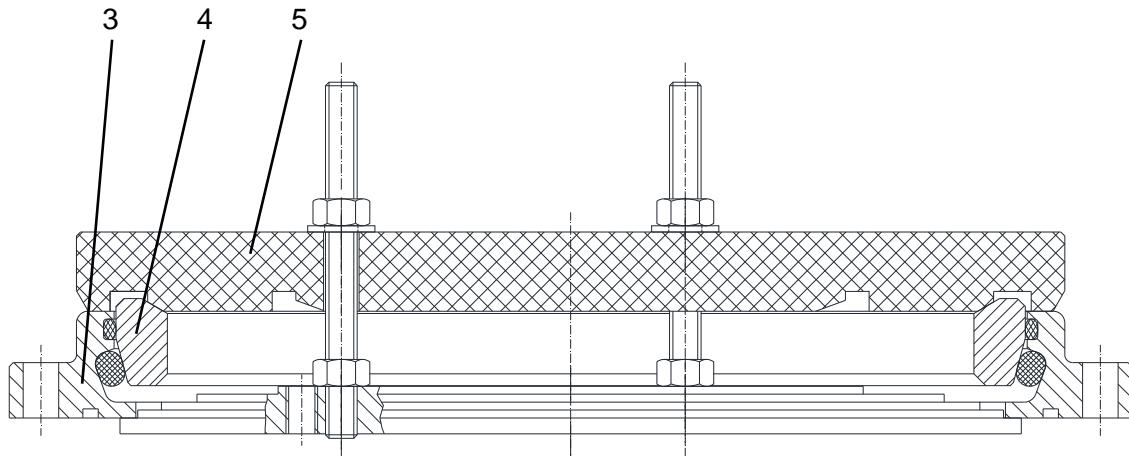
1. Put O-Ring (1) and O-Ring (2) into sealing support (3).
2. Avoid contact of the O-rings and the sealing support with oil, grease or other lubricating operating materials (The friction coefficient of the dry components should be maintained.).



3. Moisten SiC-ring with oil on the shown faces to prevent damage to the O-ring.
Do not use grease!



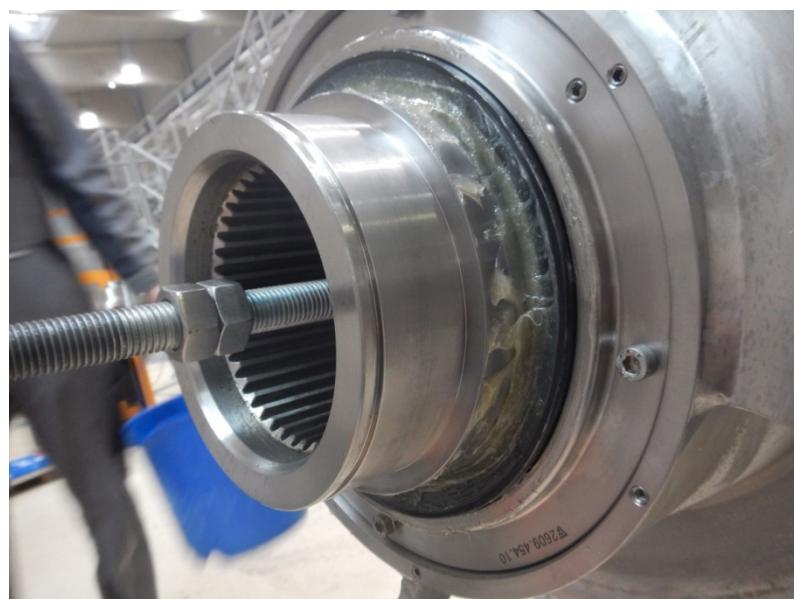
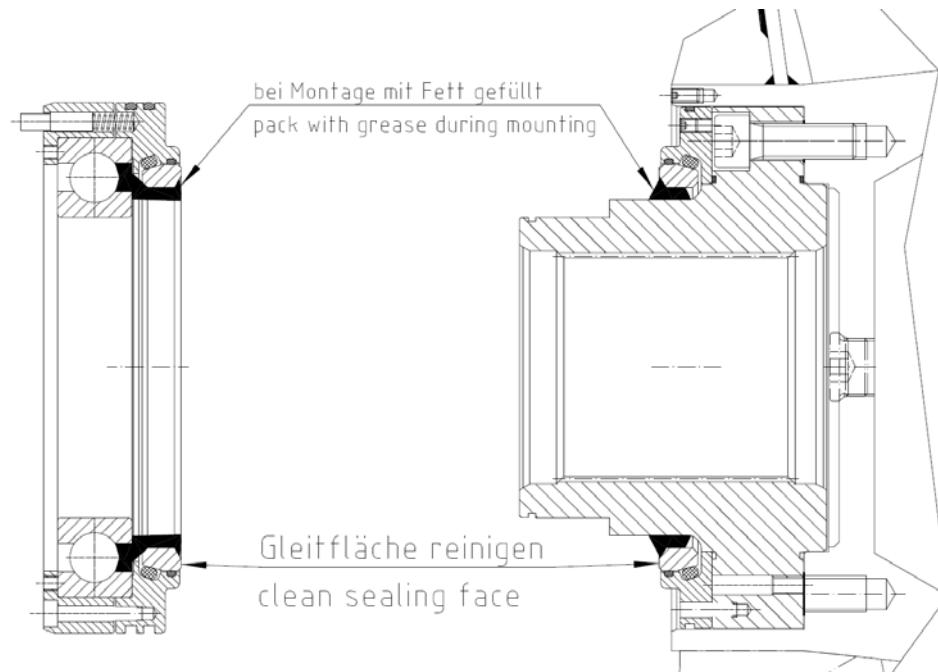
4. Press SiC-ring (4) into sealing support (3) with mounting device (5).
Take care of a smooth movement.



5. Remove mounting device (5). Check visual if sealing face is parallel to flange of sealing support.

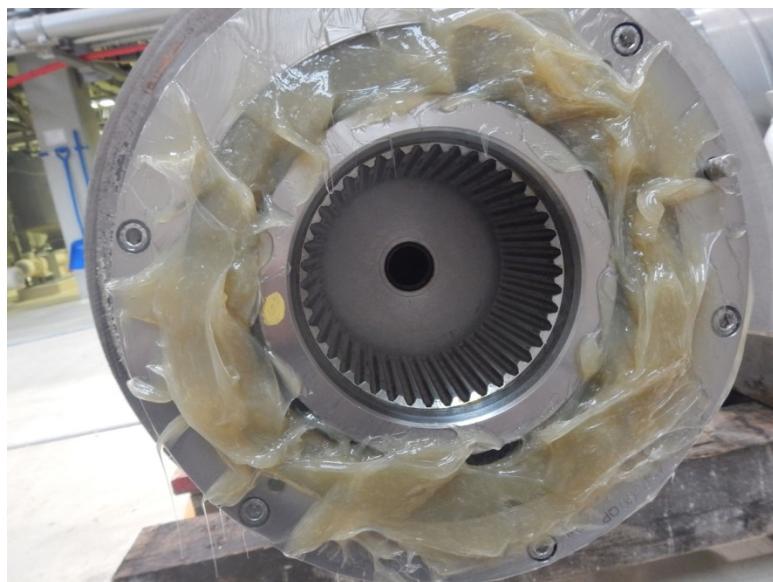
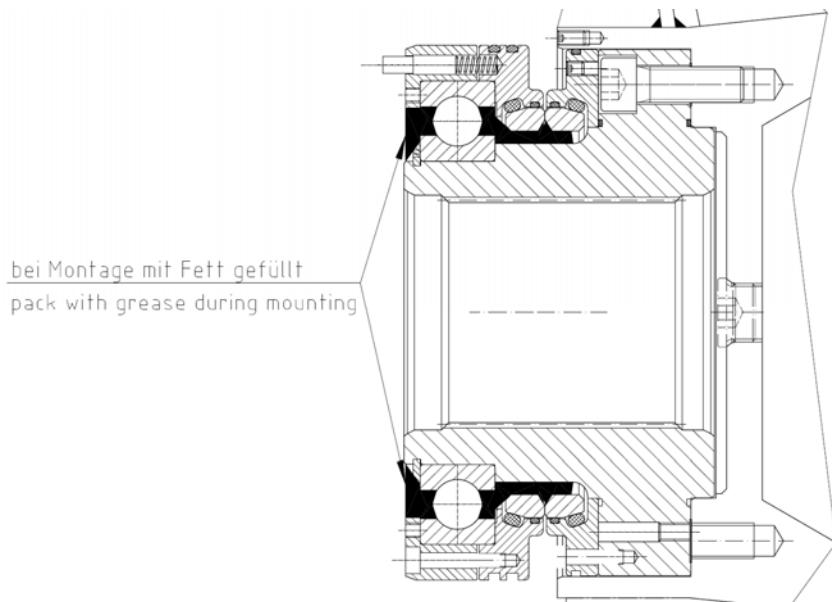
Assembly of seal carrier

6. Pack the seal carrier with grease (as shown on the picture and sketch).
7. Clean sealing face with a rag.



8. Bring the sliding surfaces of the two seals to each other.
9. Install all other necessary components.

10. Fill the bearing with grease as shown in the sketch/picture.



11. After assembling spin the rotor at least two times. Check visual if axial- and radial run out of the SiC-rings is all right.
12. Should massive irregular running be determined the disassembly and re-assembly after step 4 is necessary.

*the sketches and pictures shown in this manual are just to exemplify the assembly.
The steps described are applicable for all machine types with SiC seals and also for thrust and locating bearing.



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Maschinen- und Anlagentechnik**

article	adequate carrying capacity	fabr.-nr.	customer-nr.	date
rotor elevating mechanism RTV 6300	6300 kg		K-004136	

instruction book

and

test book

fabr.-nr.:

part-ID : 2390.288.10

article: rotor elevating mechanism RTV 6300, variable, carrying capacity 6300 kg

customer's address:

**Flottweg SE
Industriestraße 6-8
D-84137 Vilsbiburg**

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article	adequate carrying capacity	fabr.-nr.	customer-nr.	date
rotor elevating mechanism RTV 6300	6300 kg		K-004136	

instruction book rotor elevating mechanism RTV 6300, carrying capacity 6300kg

for the handling and the application of charging screws

A instruction book spiral elevating mechanism RTV 6300, adequate carrying capacity 6300kg

1. Before each application the product must be checked if it is in a correct condition or if there are possible damages.
2. Only adequate loads should be brought in, in the product.
3. Under the product in raised position there should not stand any person.
4. If there are unclear areas, there should be adaptors.
5. Before attaching the RTV 6300 at the lifting tool, the both locking screws at the front absorption fishing plate and the safety screw should be tightened.
6. The front absorption fishing plate of the RTV 6300 can be moved. Before using the locking screws must be tightened.
7. It's important, that the front safety screw exists and is tightened.
8. If it's necessary the long goods must be lead by a person.
9. Persons who lead moving load while the travel motion, must not stand before the load, if you look in the direction of motion.
10. The crane operator must all the time observe the adaptor or rather the person, who lead the load.
11. If it is necessary there must be useful auxiliary materials (for exemple guy ropes, grab handles,...).
12. The crane operator must be sure that cummuting loads aren't dangerous for other people.
13. The owner and the responsible operator must assure, that each user is acquaint with the safe employment oft he product.

B Determination oft the weight oft the load

1. The load at the load handling attachment must not be higher as it is named on the pendant of carrying capacity.
2. For identification there can be used shipping documents, inscriptions at the load, weight tables for exemple for section steel, Calculate or weigh by using scales.

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 Maschinen- und Anlagentechnik**

article	adequate carrying capacity	fabr.-nr.	customer-nr.	date
rotor elevating mechanism RTV 6300	6300 kg		K-004136	

C handling oft he load

1. Before the lifting operation it should be clear, that the load is safe positioned on the receiving brackets of the cross beam.
2. It is important that the equipment is safely affixed, before lifting the load.
3. Slings must not be overloaded and must be without twists or knots.
4. Where the sling can encounter sharp edges oft the load, there are blotters (e.g. corner protectors, wood, PU-cable protective tubes, etc.) or similar auxiliary materials for protection necessary.
5. Slings must not be pulled out with force under the load. Loads must be set down on lumber in a way so that there is enough space for removing the slings.
6. While the sling is positioned the hands can only touch the sling from outside so that the hands aren't be in danger while screwing.
7. If the load is ready for the lifting, it should be raised up only a little at first and checked whether it is well fixed and it rest horizontal.
8. If the load overturns, it must be blow off and must be positioned centrically above the balance point.
9. Before the lifting the operator hast to leave the dangerous area.
10. People must not stand needless at dangerous places, particular under pending loads, in transport area and bending ranges as well as in confusing traffic- and transport areas.
11. The load must not be leaded over people, if lifting accessories are used, which hold the load with the aid of magnet force, suction power, or friction force without additional form closed safety.

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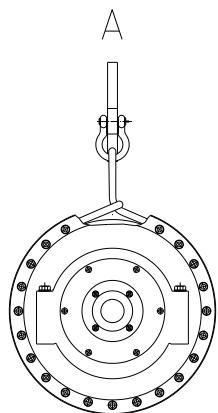
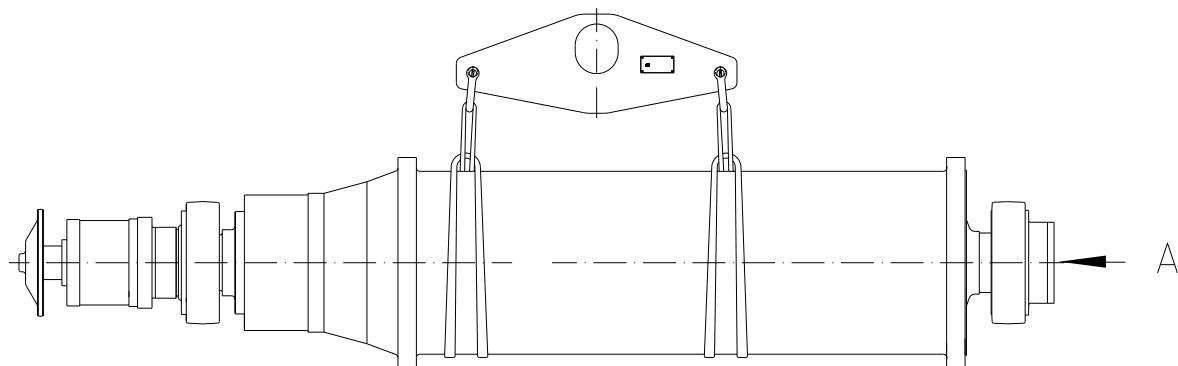


**Die Spezialisten für Stahlbau, Krananlagen
Maschinen- und Anlagentechnik**

article	adequate carrying capacity	fabr.-nr.	customer-nr.	date
rotor elevating mechanism RTV 6300	6300 kg		K-004136	

D Use and construction

- Disassemble the rotor how it is described in the instruction of machine care.
- Drive the elevating mechanism of the rotor with the crane over the rotor.
- Set the included slip ropes around the rotor and fix it with the shackle at the elevating mechanism of the rotor.
- Lift the rotor a little bit and check if he hangs horizontally; if not set him down again and displace the elevating mechanism of the rotor until he hangs horizontally.



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**Die Spezialisten für Stahlbau, Krananlagen
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article	adequate carrying capacity	fabr.-nr.	customer-nr.	date
rotor elevating mechanism RTV 6300	6300 kg		K-004136	

E startup of load handling attachments and slings

Before the first use there must be sure, that

1. the sling complies with the ordering,
2. the declaration of conformity and the inspection document exists,
3. the marking designations and carrying capacity designations on the sling conform to the designation on the declaration of conformity and the inspection document,
4. the guide book was read accurately.

F Checking if there are obvious defects

Before each use the lifting accessories, load handling attachments and slings must be checked if they have obvious defects. Obvious defects are for example

1. deformed absorption lugs,
2. damaged arresting bolts,
3. bended up hooks,
4. damaged safety latches,
5. cracked and deformed chain links,
6. displaced connecting bolts in chain connecting links,
7. cracks in fiber ropes and wire ropes,
8. cuts in lifting straps,
9. damages off the round sling cover,
10. crooked lifting eyes,
11. cracks in weld joints,
12. damaged screw thread and threads in bolts
13. etc..

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**Die Spezialisten für Stahlbau, Krananlagen
Maschinen- und Anlagentechnik**

article	adequate carrying capacity	fabr.-nr.	customer-nr.	date
rotor elevating mechanism RTV 6300	6300 kg		K-004136	

G Prescribed maintenances and inspections

1. Slings and load handling attachments must be held in an operational condition with the aid of periodic maintenance (according to instructions and instructions of the manufacturer).
2. The contractor must be sure, that the lifting accessories and therewith also load handling attachments and slings will be checked by a specialist in intervals of not longer than one year.
3. Depending on the usage conditions checks can be necessary in a shorter time than one year (e.g. usual application with a maximum of allowed force, increased abrasion, corrosion influences, influence of heat, chemical influence, elevated risk of damage, etc.)
4. Notes of the inspection must be preserved.
5. If there is doubt whether the load handling attachments and slings are in a safe condition, they must be immediately decommissioned and checked.
6. Machine maintenance work must be accomplished by an adequate skilled person or a specialist.
7. For corrective maintenance work there must only be used original spare parts.
8. The contractor has to ensure that lifting accessories after cases of damage or other incidents, which can influence the carrying capacity, or after maintenance work, will be checked by a specialist.
9. Before the checking the lifting accessories or rather the load handling attachments and slings must be thoroughly cleaned so that they are free from dirt, oil, grease and corrosion.
10. Each cleaning method which doesn't corrode the base material is allowed..
11. Methods which cause hydrogen embrittlement (e.g. stripping), overheating (e.g. evaporation, scarffing, calcination, etc.), basic material abrasion (e.g. subsequent grinding, blast cleaning, etc.) or deformation of the basic material (e.g. beating, etc.) or methods which hide cracks or surface damages, should be avoided.
12. There must be taken notes of each check and corrective maintenance work and these notes must be preserved over the whole period of usage.
13. The employee protective law prescribes the preparation of a test plan for every lifting accessories.

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Prescribed tests of the government safety organisation

See the latest edition of the

BGR 500- cap. 2.8 „Operation of lifting accessories in lifting factories“.

reference: Carl Heymanns Verlag
Wolters Kluwer Deutschland GmbH
Luxemburger Str. 449
D-50939 Köln

Abstract from the rule of the government safety organisation BGR 500 – cap. 2.8

3.15 Checks

3.15.1 Check before the first commissioning

The contractor has to ensure, that the load handling attachments only will be commissioned when they are checked by a specialist or when the defects are repaired.

Specialist is a person who has an adequate knowledge based on his education in the range of lifting accessories. Moreover he must be familiar with the technical measures for occupational safety and health, accident prevention regulations and general rules of technology (e.g BG-rules, DIN-norms, VDE determinations, technical rules of other member states of the European Union or of Turkey or other contract states of the treaty of the European economic area), so that he can assess the safety condition of lifting accessories..

3.15.2 Regular checks

1. The contractor has to ensure, that the lifting accessories will be checked in periods of at most one year by a specialist.

Depending on the usage conditions of the lifting accessories, checks can be necessary in shorter intervals than one year. This is classified for example by frequent use, increased abrasion, corrosion or influence of heat or if there can be count on increased fault liability.

2. The contractor has to ensure, that round bar chains, which were used as slings in periods of at most three years will be checked for absence of cracks.

The check can be carried out with the aid of a non-destructive method.

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3. The contractor has to ensure, that webbing slings with vulcanized coating in periods of at most three years will be checked for broken wires and corrosion.

Depending on the usage conditions, checks can be necessary in shorter intervals than three years. This is classified for example by damage of the coating. Already at low damage of the coating can appear corrosion because of entrapped moisture also by zinc coated conductors. Shorter intervals than three years can also be necessary, when the contractor can't give a guarantee for the fitness of the webbing slings for a period of at least three years.

3.15.3 Extraordinary checks

The contractor has to ensure that lifting accessories after cases of damage or other incidents, which can influence the carrying capacity, or after maintenance work, will be checked by a specialist

3.15.4 Amount of inspection

1. The check before the first commissioning according to paragraph 3.15.1 and the regular checks according to paragraph 3.15.2 are basically visual inspections and functional checks. The condition of the components and attachments, the conventional assembly and completeness and efficacy of the safety devices must be checked.

*In the visual inspection the identification of the following deficits is very important:
(points 1 to 8 see BGR 500, paragraph 3.15.4, page 18 to 21)*

9. At other lifting accessories

- fracture, deformation or cracks,
- damages, heavy abrasion,
- corrosion damages,
- functional disorder at safety device.

Before the visual and functional inspection it's possible that there is a cleaning of the lifting accessories necessary. This is classified especially for lifting accessories, which are dirty or because of the prior use of other materials, e.g. color or salt they are afflicted with these materials.

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2. The tests according to paragraph 3.15.2.2 and 3.15.2.3 are physical-technical tests.
3. The amount of the extraordinary check according to paragraph 3.15.3 complies with type and amount of the case of damage, occurrence or maintenance.

3.15.5 Test record

The contractor has to ensure, that there exists a certificate from the checks of load-carrier mediums according to paragraph 3.15.2.1 and 3.15.3 and of the special checks of the round bar chains and the lifting strap with vulcanized coating according to paragraph 3.15.2.2 and 3.15.2.3. For other checks the government safety organisation can demand for a test record.

By load-carrier mediums the certificate should be combined with the test record of the hoisting device.

By slings the test records can be inscribed on the back side of the certificate of the chain or in the chain test book or chain file card.

The test records must be presented at the request of the supervisor. Therefore it's necessary that they were preserved so that they are available at all times.

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control compliance status of a regular/ extraordinary test/ retesting

The lifting accessorie has been subjected to regular/ extraordinary inspection *) on _____ . Thereby no/ the following *) defects were detected: 	
Scope of audit_____	
Remaining partial tests _____	
There is doubt / no doubt *) in a further operation.	
A retesting is required/ isn't required *) the expert *)	
(place, date)	(signature)
job title: _____	name of the expert *): (in block letters) _____
employed by: _____	address: _____ _____
Defects are noted **)	Defects are corrected **) _____

***) Please delete as appropriate**

**) confirmation of the operator or his representative with date and signature

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article	adequate carrying capacity	fabr.-nr.	customer-nr.	date
scroll elevating mechanism SHV 1500	1500 kg	- - - - -	K-004136	- - - - -

instruction book

and

test book

part-ID : 2390.287.00

fabr.-nr.: - - - - -

article: scroll elevating mechanism SHV 1500, variable, carrying capacity 1500 kg

customer's address:

**Flottweg SE
Industriestraße 6-8
D-84137 Vilsbiburg**

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instruction book scroll elevating mechanism SHV 1500, carrying capacity 1500kg

for the handling and the application of charging screws

A instruction book scroll elevating mechanism SHV 1500, adequate carrying capacity 1500kg

1. Before each application the product must be checked if it is in a correct condition or if there are possible damages.
2. Only adequate loads should be brought in, in the product.
3. Under the product in raised position there should not stand any person.
4. If there are unclear areas, there should be adaptors.
5. Before attaching the SHV 1500 at the lifting tool, the both locking screws at the front absorption fishing plate and the safety screw should be tightened.
6. The front absorption fishing plate oft he SHV 1500 can be moved. Before using the locking screws must be tightened.
7. It's important, that the front safety screw exists and is tightened.
8. If it's necessary the long goods must be lead by a person.
9. Persons who lead moving load while the travel motion, must not stand before the load, if you look in the direction of motion.
10. The crane operator must all the time observe the adaptor or rather the person, who lead the load.
11. If it is necessary there must be useful auxiliary materials (for exemple guy ropes, grab handles,...).
12. The crane operator must be sure that cummuting loads aren't dangerous for other people.
13. The owner and the responsible operator must assure, that each user is acquaint with the safe employment oft he product.

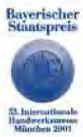
B Determination oft the weight oft the load

1. The load at the load handling attachment must not be higher as it is named on the pendant of carrying capacity.
2. For identification there can be used shipping documents, inscriptions at the load, weight tables for exemple for section steel, Calculate or weigh by using scales.

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C handling oft he load

1. Before the lifting operation it should be clear, that the load is safe positioned on the receiving brackets of the cross beam.
2. It is important that the equipment is safely affixed, before lifting the load.
3. Slings must not be overloaded and must be without twists or knots.
4. Where the sling can encounter sharp edges oft the load, there are blotters (e.g. corner protectors, wood, PU-cable protective tubes, etc.) or similar auxiliary materials for protection necessary.
5. Slings must not be pulled out with force under the load. Loads must be set down on lumber in a way so that there is enough space for removing the slings.
6. While the sling is positioned the hands can only touch the sling from outside so that the hands aren't be in danger while screwing.
7. If the load is ready for the lifting, it should be raised up only a little at first and checked whether it is well fixed and it rest horizontal.
8. If the load overturns, it must be blow off and must be positioned centrically above the balance point.
9. Before the lifting the operator hast to leave the dangerous area.
10. People must not stand needless at dangerous places, particular under pending loads, in transport area and bending ranges as well as in confusing traffic- and transport areas.
11. The load must not be leaded over people, if lifting accessories are used, which hold the load with the aid of magnet force, suction power, or friction force without additional form closed safety.

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D Use and construction

- Disassemble the spiral how it is described in the instruction of machine care.
- Drive the elevating mechanism of the spiral with the crane over the spiral.
- Turn around the rotor until the borings fit together.
- Screw the elevating mechanism of the spiral with the bolts (3) and bolting torque (80 Nm) adduction..

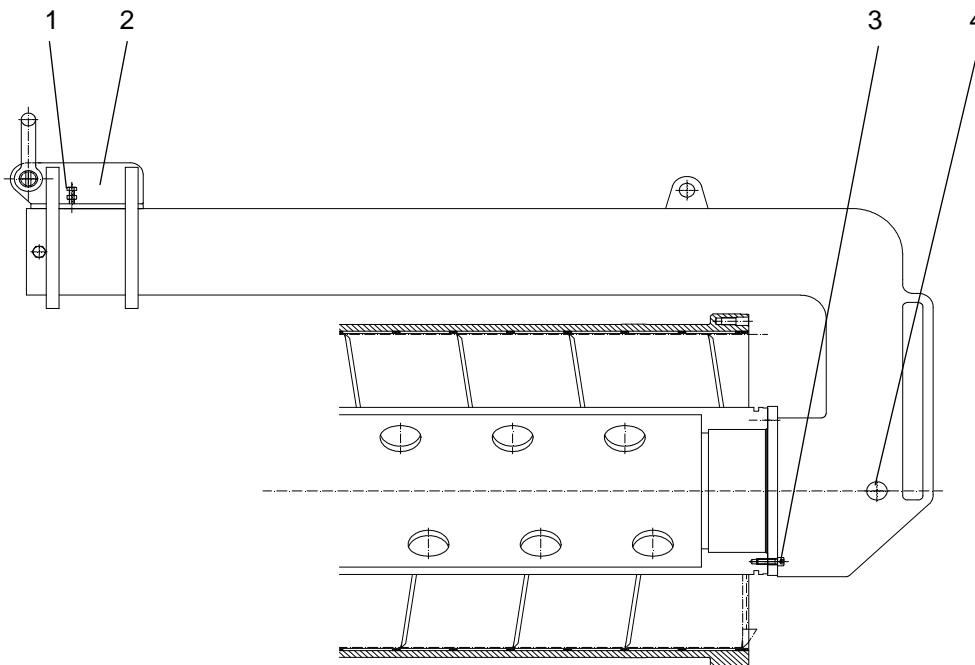


Do not load the elevating mechanism of the spiral over the allowed carrying capacity.

WARNUNG

Lifting with the crane weigher if necessary.

- Lift the spiral a little bit and check if she hangs horizontally; if not set her down again, disconnect the bolts (1) and displace the attachment (2) and connect the bolts (1).
- Lift the spiral a little bit with the crane.
- Over the bolts (4) there can be carried out an axial pull on the spiral. The axial pull can only be carried out over these bolts.
- There is no diagonal pull allowed over the crane!
- Remove accumulations step by step by the extraction of the spiral so that a capacity overload of the elevating mechanism of the spiral can be avoid!



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E startup of load handling attachments and slings

Before the first use there must be sure, that

1. the sling complys with the ordering,
2. the declaration of conformity and the inspection document exists,
3. the marking designations and carrying capacity designations on the sling conform to the designation on the declaration of conformity and the inspection document,
4. the guide book was read accurately.

F Checking if there are obvious defects

Before each use the lifting accessories, load handling attachments and slings must be checked if they have obvious defects. Obvious defects are for example

1. deformed absorption lugs,
2. damaged arresting bolts,
3. bended up hooks,
4. damaged safety latches,
5. cracked and deformed chain links,
6. displaced connecting bolts in chain connecting links,
7. cracks in fiber ropes and wire ropes,
8. cuts in lifting straps,
9. damages off the round sling cover,
10. crooked lifting eyes,
11. cracks in weld joints,
12. damaged screw thread and threads in bolts
13. etc..

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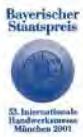
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Haslinger_{GmbH}
Metallbau

Partner of

STAHL
Crane Systems

**Die Spezialisten für Stahlbau, Krananlagen
Maschinen- und Anlagentechnik**

article	adequate carrying capacity	fabr.-nr.	customer-nr.	date
scroll elevating mechanism SHV 1500	1500 kg	- - - - -	K-004136	- - - - -

3. The contractor has to ensure, that webbing slings with vulcanized coating in periods of at most three years will be checked for broken wires and corrosion.

Depending on the usage conditions, checks can be necessary in shorter intervals than three years. This is classified for example by damage of the coating. Already at low damage of the coating can appear corrosion because of entrapped moisture also by zinc coated conductors. Shorter intervals than three years can also be necessary, when the contractor can't give a guarantee for the fitness of the webbing slings for a period of at least three years.

3.15.3 Extraordinary checks

The contractor has to ensure that lifting accessories after cases of damage or other incidents, which can influence the carrying capacity, or after maintenance work, will be checked by a specialist

3.15.4 Amount of inspection

1. The check before the first commissioning according to paragraph 3.15.1 and the regular checks according to paragraph 3.15.2 are basically visual inspections and functional checks. The condition of the components and attachments, the conventional assembly and completeness and efficacy of the safety devices must be checked.

*In the visual inspection the identification of the following deficits is very important:
(points 1 to 8 see BGR 500, paragraph 3.15.4, page 18 to 21)*

9. At other lifting accessories

- fracture, deformation or cracks,
- damages, heavy abrasion,
- corrosion damages,
- functional disorder at safety device.

Before the visual and functional inspection it's possible that there is a cleaning of the lifting accessories necessary. This is classified especially for lifting accessories, which are dirty or because of the prior use of other materials, e.g. color or salt they are afflicted with these materials.

Lieferung erfolgt aufgrund unserer Verkaufs-, Lieferungs- und Zahlungsbedingungen.

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Sitz der Gesellschaft: 94501 Aldersbach-Uttigkofen • Eingetragen beim Amtsgericht Passau unter HRB Nr. 2747
Geschäftsführer Karl Haslinger jun., Annemarie Haslinger • UID DE 812 086 620 • St.-Nr. 153/128/10104



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article	adequate carrying capacity	fabr.-nr.	customer-nr.	date
scroll elevating mechanism SHV 1500	1500 kg	- - - - -	K-004136	- - - - -

2. The tests according to paragraph 3.15.2.2 and 3.15.2.3 are physical-technical tests.
3. The amount of the extraordinary check according to paragraph 3.15.3 complies with type and amount of the case of damage, occurrence or maintenance.

3.15.5 Test record

The contractor has to ensure, that there exists a certificate from the checks of load-carrier mediums according to paragraph 3.15.2.1 and 3.15.3 and of the special checks of the round bar chains and the lifting strap with vulcanized coating according to paragraph 3.15.2.2 and 3.15.2.3. For other checks the government safety organisation can demand for a test record.

By load-carrier mediums the certificate should be combined with the test record of the hoisting device.

By slings the test records can be inscribed on the back side of the certificate of the chain or in the chain test book or chain file card.

The test records must be presented at the request of the supervisor. Therefore it's necessary that they were preserved so that they are available at all times.

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article	adequate carrying capacity	fabr.-nr.	customer-nr.	date
scroll elevating mechanism SHV 1500	1500 kg	- - - - -	K-004136	- - - - -

control compliance status of a regular/ extraordinary test/ retesting

The lifting accessorie has been subjected to regular/ extraordinary inspection *) on _____ . Thereby no/ the following *) defects were detected: 	
Scope of audit_____	
Remaining partial tests _____	
There is doubt / no doubt *) in a further operation.	
A retesting is required/ isn't required *) the expert *)	
(place, date)	(signature)
job title: _____	name of the expert *): (in block letters) _____
employed by: _____	address: _____ _____
Defects are noted **)	Defects are corrected **) _____

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article	adequate carrying capacity	fabr.-nr.	customer-nr.	date
scroll elevating mechanism SHV 1500	1500 kg	- - - - -	K-004136	- - - - -

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Scope of audit_____	
Remaining partial tests _____	
There is doubt / no doubt *) in a further operation.	
A retesting is required/ isn't required *) the expert *)	
(place, date)	(signature)
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employed by: _____	address: _____ _____
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scroll elevating mechanism SHV 1500	1500 kg	- - - - -	K-004136	- . - . - -

control compliance status of a regular/ extraordinary test/ retesting

The lifting accessorie has been subjected to regular/ extraordinary inspection *) on _____ . Thereby no/ the following *) defects were detected: 	
Scope of audit_____	
Remaining partial tests _____	
There is doubt / no doubt *) in a further operation.	
A retesting is required/ isn't required *) the expert *)	
(place, date)	(signature)
job title: _____	name of the expert *): (in block letters) _____
employed by: _____	address: _____ _____
Defects are noted **)	Defects are corrected **)

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Listagens de Peças e Desenhos

Listagem „Ferramentas e Acessórios“

Listagem „Peças Sobresselentes Recomendadas“

<<< Parts list and Document >>>

Component	Component description	Document
00000000200041705	Flottweg-Decanter	
.1 1001.5898	1 PC rotor complete	1001-5898/000/A
.2 1001.5892	1 PC scroll complete	1001-5892/000/-
.3 2101.170.20	1 PC machine base	C 2101.170.20/000/B
.4 1001.5881	1 PC housing complete	D 2110.255.10/000/C
.9 1001.5905	1 PC gear complete	1001-5905/000/A
.10 2103.484.10	1 PC drive complete	C 2103.484.10/000/B
.11 1000.8209	1 PC oil-air lubrication	B 2107.246.40/000/C
.12 2108.149.20	1 PC belt guard complete	D 2108.149.00/000/-
.30 2303.974.00	1 PC bowl belt drive	
.31 2302.749.00	1 PC conveyer belt drive	
.35 1000.9471	1 PC tool	
.38 2190.127.00	1 PC transportation lock	D 2190.127.00/000/-
.61 2129.182.20	1 PC bearing temp.control	F 2129.182.00-01/000/A
.65 2129.290.20	1 PC vibration monitoring system	F 2129.290.00/000/C
.85 1004.1480	1 PC cabling decanter	
.2000 1004.2249	1 PC diff. and bowl speed monitoring	E 2129.248.20/000/A
..16 1031.581.40	1 PC gear	C 1031.581.40/000/B
..1 1000.7300	1 PC oil-air lubrication unit	5026.0259/000/-

Recommended spare parts

>>> Parts list <<<

Pos.	Component	Component description	Document
	200041705		
.1	1001.5898	1 PC rotor complete	1001-5898/000/A
.2	1001.5892	1 PC scroll complete	1001-5892/000/-
.3	2101.170.20	1 PC machine base	C 2101.170.20/000/B
.4	1001.5881	1 PC housing complete	D 2110.255.10/000/C
.9	1001.5905	1 PC gear complete	1001-5905/000/A
.10	2103.484.10	1 PC drive complete	C 2103.484.10/000/B
.11	1000.8209	1 PC oil-air lubrication	B 2107.246.40/000/C
.12	2108.149.20	1 PC belt guard complete	D 2108.149.00/000/-
.20	1001.5354	1 PC drive motor	
.21	1001.7594	1 PC drive motor	
.30	2303.974.00	1 PC bowl belt drive	
.31	2302.749.00	1 PC conveyer belt drive	
.35	1000.9471	1 PC tool	
.36	2390.288.10	1 PC rotor lifting device	E 2390.288.10/000/A
.37	2390.287.00	1 PC scroll lifting device	D 2390.287.00/000/-
.38	2190.127.00	1 PC transportation lock	D 2190.127.00/000/-
.41	1002.159.00	20 L mineral oil	
.43	1002.017.00-01	1 KG roller bearing grease	
.44	1002.017.00-02	2 PC roller bearing grease	
.46	1002.195.00-02	2 PC gear oil	
.47	1002.195.00-03	1 PC gear oil	
.61	2129.182.20	1 PC bearing temp.control	F 2129.182.00-01/000/A
.64	2301.508.00	1 PC compensator complete	D 2301.508.00/000/A
.65	2129.290.20	1 PC vibration monitoring system	F 2129.290.00/000/C
.68		1 PC FC-bowl supplied by customer	
.69		1 PC FC-scroll supplied by customer	
.85	1004.1480	1 PC cabling decanter	
.91	1042.974.02-01	1 PC plates compl.	E 1042.974.02-01/000/-
.2000	1004.2249	1 PC diff. and bowl speed monitoring	E 2129.248.20/000/A

>>> Parts list <<<

Pos.	Component	Component description		Document
	1001.5898		rotor complete	1001-5898/000/A
..1	0058.243.40	3 PC	clamping sleeve	
..2	1012.008.62-02	3 PC	O-ring	
..3		1 PC	see parts list 2102.xxx.xx	
..4	0122.002.41	2 PC	grease nipple	
..5	1019.300.00-01	4.000 MM	guide ring	
..6	2609.465.10	1 PC	bearing cover	D 2609.465.10/000/B
..7	0058.212.40	4 PC	clamping sleeve	
..8	1012.669.60	4 PC	O-ring	
..9	1012.005.60	4 PC	O-ring	
..10	0150.060.41	12 PC	hexagon socket set screw	
..11	2609.466.10	1 PC	bearing cover	D 2609.466.10/000/A
..12	1014.274.00	1 PC	cylindrical roller bearing	
..13	2605.103.00	1 PC	bearing block	C 2605.103.00/000/B
..14	1109.029.00	2 PC	plug	
..15	2609.468.00	1 PC	bearing cover	D 2609.468.00/000/B
..16	2609.467.10	1 PC	bearing cover	D 2609.467.10/000/C
..17	1012.666.62-02	1 PC	O-ring	
..18	2611.707.10	2 PC	guard ring	E 2611.707.10/000/B
..19	1012.658.62-02	2 PC	O-ring	
..20	2631.835.00	2 PC	sealing box support	E 2631.835.00/000/E
..21	0038.085.41	16 PC	hexagon socket set screw	
..22	2601.293.00	1 PC	hub	C 2601.293.00/000/F
..23	2342.122.00	2 PC	scraper strip	F 2342.122.00/000/B
..24	0037.067.41	18 PC	head cap screw	
..25	2311.915.00-02	1 PC	conical bowl	F 2311.915.00-02/000/A
..26	2311.952.00-01	4 PC	scraper strip	F 2311.952.00-01/000/D
..27	0037.188.41	100 PC	head cap screw	
..28	1012.665.62-02	2 PC	O-ring	
..29	2311.740.00	1 PC	cylindrical bowl	B 2311.740.00/000/-
..30	1019.301.00-01	3.000 MM	guide ring	
..31	1001.1573	1 PC	feed pipe	1001-1573/000/-
..32	2311.728.20	1 PC	impeller pipe	D 2311.728.20/000/-
..33	0037.068.41	4 PC	head cap screw	
..34	2919.054.03	4 PC	solids scraper	E 2919.054.00/000/B
..35	2311.734.30	1 PC	bowl cover	C 2311.734.30/000/-
..36	0037.100.36	12 PC	head cap screw	
..37	2311.737.10	1 PC	bowl flange	B 2311.737.10/000/D
..38	2609.462.00	1 PC	bearing cover	D 2609.462.00/000/C
..39	0054.082.41	1 PC	straight grooved pin	
..40	2609.463.00	1 PC	bearing cover	D 2609.463.00/000/B
..41	1014.447.00	1 PC	grooved ball bearing	

>>> Parts list <<<

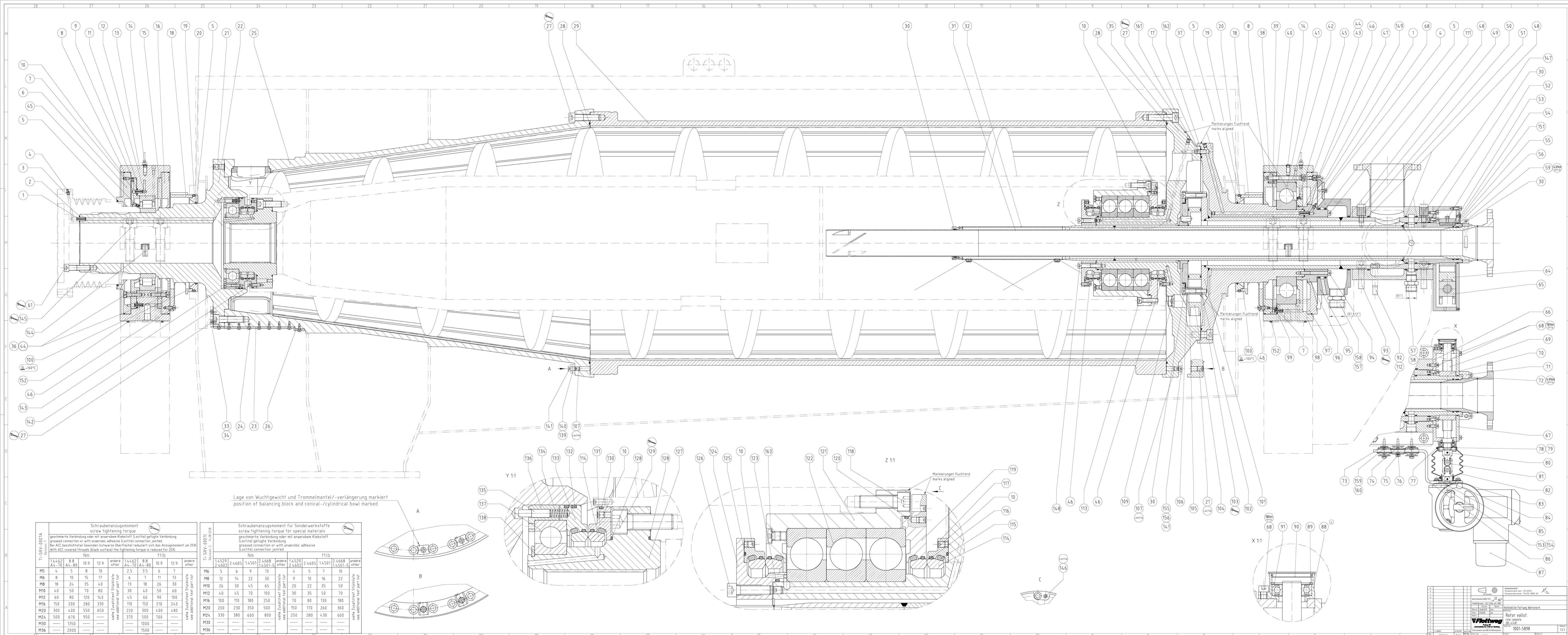
Pos.	Component	Component description	Document
	1001.5898	rotor complete	1001-5898/000/A
..42	0037.122.36	8 PC head cap screw	
..43	0037.097.36	4 PC head cap screw	
..44	1212.221.60	16 PC sealing	
..45	2619.260.10	4 PC nozzle	F 2619.260.10/000/-
..46	0037.082.41	32 PC head cap screw	
..47	1012.290.62-02	1 PC O-ring	
..48	1012.516.62-02	4 PC O-ring	
..49	0044.253.41	4 PC hexagon screw	
..50	2627.667.00	2 PC wedge	E 2627.667.00/000/A
..51	2311.730.00	1 PC support	C 2311.730.00/000/G
..52	0044.130.36	1 PC hexagon screw	
..53	0088.089.00	1 PC feather key	
..54	0132.029.41	2 PC hex.s.countersunk h.cap screw	
..55	1012.110.60	1 PC O-ring	
..56	2631.827.00	1 PC plate	F 2631.827.00/000/A
..57	0072.452.41	1 PC double nipple, equal with hexagon	
..58	1109.290.00	1 PC screw cap	
..59	0037.119.41	1 PC head cap screw	
..61	0037.150.41	8 PC head cap screw	
..64	2627.669.00	1 PC sliding block	E 2627.669.00/000/A
..65	2627.670.00	1 PC sheave bushing	F 2627.670.00/000/-
..66	2311.732.00	1 PC case	C 2311.732.00/000/C
..67	2631.824.00	1 PC cover	C 2631.824.00/000/A
..68	0037.081.41	32 PC head cap screw	
..69	2627.671.00	1 PC scroll shaft	E 2627.671.00/000/A
..70	2631.831.00	1 PC adjusting lever	D 2631.831.00/000/A
..71	2631.825.00	1 PC clamp collar	E 2631.825.00/000/B
..72	0037.112.41	3 PC head cap screw	
..73	0102.008.54	4 PC disc	
..74	1010.018.01	3 PC MEGI cone	
..75	0043.055.36	3 PC hexagon screw	
..76	0011.010.36	3 PC spring washer	
..77	1025.351.09	1 PC clamp	
..78	1016.010.00	1 PC retaining ring	
..79	1016.279.00	1 PC supporting disc	
..80	0058.139.40	2 PC clamping sleeve	
..81	2619.939.00	1 PC universal shaft	F 2619.939.00/000/B
..82	1085.229.00	1 PC rubber bellow	
..83	2631.109.00	1 PC fixing strap	F 2631.109.00/000/C
..84	1025.347.09	1 PC clamp	
..85	0044.132.36	4 PC hexagon screw	

>>> Parts list <<<

Pos.	Component	Component description		Document
	1001.5898		rotor complete	1001-5898/000/A
..86	2631.903.00	1 PC	support	D 2631.903.00/000/B
..87	1531.046.10-02	1 PC	actuator drive	
..88	1001.4072	2 PC	bearing ring	1001-4072/000/-
..89	1016.003.00	2 PC	retaining ring	
..90	1109.512.00	1 PC	plug	
..91	1014.005.01	2 PC	grooved ball bearing	
..92	0196.010.36	2 PC	hexagon tight fit screw	
..93	0037.419.41	4 PC	head cap screw	
..94	0037.106.41	8 PC	head cap screw	
..95	2311.738.10	1 PC	leakage collecting tank	C 2311.738.10/000/A
..96	2311.739.00	1 PC	locking ring	D 2311.739.00/000/G
..97	2609.464.00	1 PC	bearing cover	D 2609.464.00/000/D
..98	2605.102.00	1 PC	bearing block	C 2605.102.00/000/F
..99	0132.032.41	2 PC	hex.s.countersunk h.cap screw	
..100	1220.012.00	1 PC	adhesive	
..101	2311.729.00	1 PC	impeller pipe sleeve	D 2311.729.00/000/A
..102	0037.118.41	8 PC	head cap screw	
..103	0037.183.41	12 PC	head cap screw	
..104	2311.968.00	1 PC	impeller disc	C 2311.968.00/000/A
..105	1012.271.62-02	2 PC	O-ring	
..106	2609.460.00	1 PC	cover plate	E 2609.460.00/000/D
..107	0038.079.41	36 PC	hexagon socket set screw	
..109	0034.032.41	2 PC	locking screw	
..111	0037.104.41	2 PC	head cap screw	
..112	1109.357.00	2 PC	clamp cap	
..113	0037.115.41	8 PC	head cap screw	
..114	2911.297.20	6 PC	sealing ring	E 2911.297.20/000/C
..115	1012.541.62	6 PC	O-ring	
..116	1012.206.68-02	6 PC	O-ring	
..117	2609.671.10	2 PC	sealing box support	D 2609.671.10/000/F
..118	0037.146.41	8 PC	head cap screw	
..119	2609.672.30	1 PC	sealing box support	C 2609.672.30/000/D
..120	1012.163.62-02	1 PC	O-ring	
..121	2610.470.20	1 PC	bearing bush	C 2610.470.20/000/C
..122	1014.296.00	3 PC	angular contact bearing	
..123	1012.123.62-02	1 PC	O-ring	
..124	2609.453.30	1 PC	sealing box support	D 2609.453.30/000/C
..125	1012.147.62-05	2 PC	O-ring	
..126	0037.113.41	2 PC	head cap screw	
..127	2601.292.10	1 PC	scroll bushing	D 2601.292.10/000/A
..128	1012.138.62-02	2 PC	O-ring	

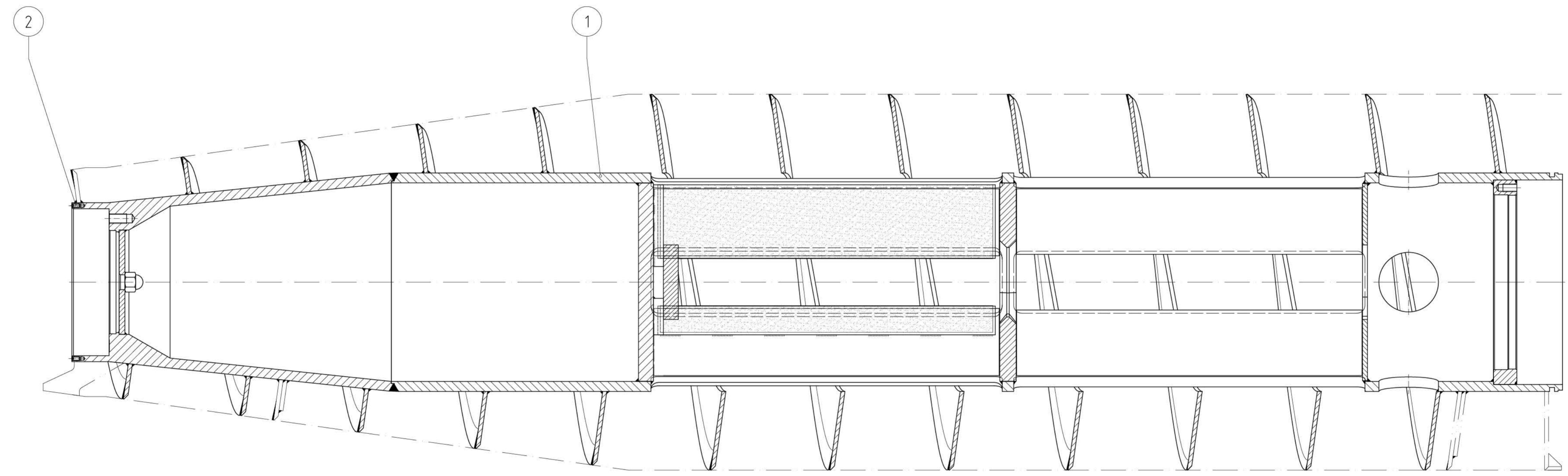
>>> Parts list <<<

Pos.	Component	Component description	Document
	1001.5898	rotor complete	1001-5898/000/A
..129	0037.185.41	20 PC head cap screw	
..130	1012.155.62-02	1 PC O-ring	
..131	2609.454.10	1 PC sealing box support	D 2609.454.10/000/F
..132	1012.154.62-02	2 PC O-ring	
..133	2609.455.10	1 PC sealing box support	D 2609.455.10/000/F
..134	0161.137.40	1 PC pressure spring	
..135	2619.973.00	1 PC bolt	F 2619.973.00/000/A
..136	2609.456.00	1 PC bearing bush	D 2609.456.00/000/A
..137	1014.448.00	1 PC grooved ball bearing	
..138	1016.478.00	1 PC retaining ring	
..139	2631.776.00	1 PC balancing block	F 2631.776.00/000/E
..140	2631.777.00	1 PC balancing block	F 2631.776.00/000/E
..141	0099.057.41	1 PC head cap screw	
..142	0037.083.41	4 PC head cap screw	
..143	0037.086.41	6 PC head cap screw	
..144	1004.6532	4 PC clamping sleeve	
..145	0037.268.41	8 PC head cap screw	
..146	0038.079.41	4 PC hexagon socket set screw	
..147	1012.302.62-02	2 PC O-ring	
..148	0037.117.41	6 PC head cap screw	
..149	2627.673.00	1 PC cover	F 2627.673.00/000/-
..151	1012.520.62-04	1 PC O-ring	
..152	1012.095.60	2 PC O-ring	
..153	2627.477.00	1 PC shaft	F 2627.477.00/000/B
..154	0088.041.41	1 PC feather key	
..155	2631.947.00	1 PC balancing block	F 2631.947.00/000/D
..156	2631.948.00	1 PC balancing block	F 2631.948.00/000/D
..157	0072.464.41	1 PC double nipple, equal with hexagon	
..158	1109.291.00	1 PC screw cap	
..159	0045.008.50	6 PC hexagon nut	
..160	0044.106.36	6 PC hexagon screw	
..161	0073.124.41	2 PC welding nipple	
..162	1012.726.62	2 PC O-ring	
..163	2619.416.00	4 PC plug	



>>> Parts list <<<

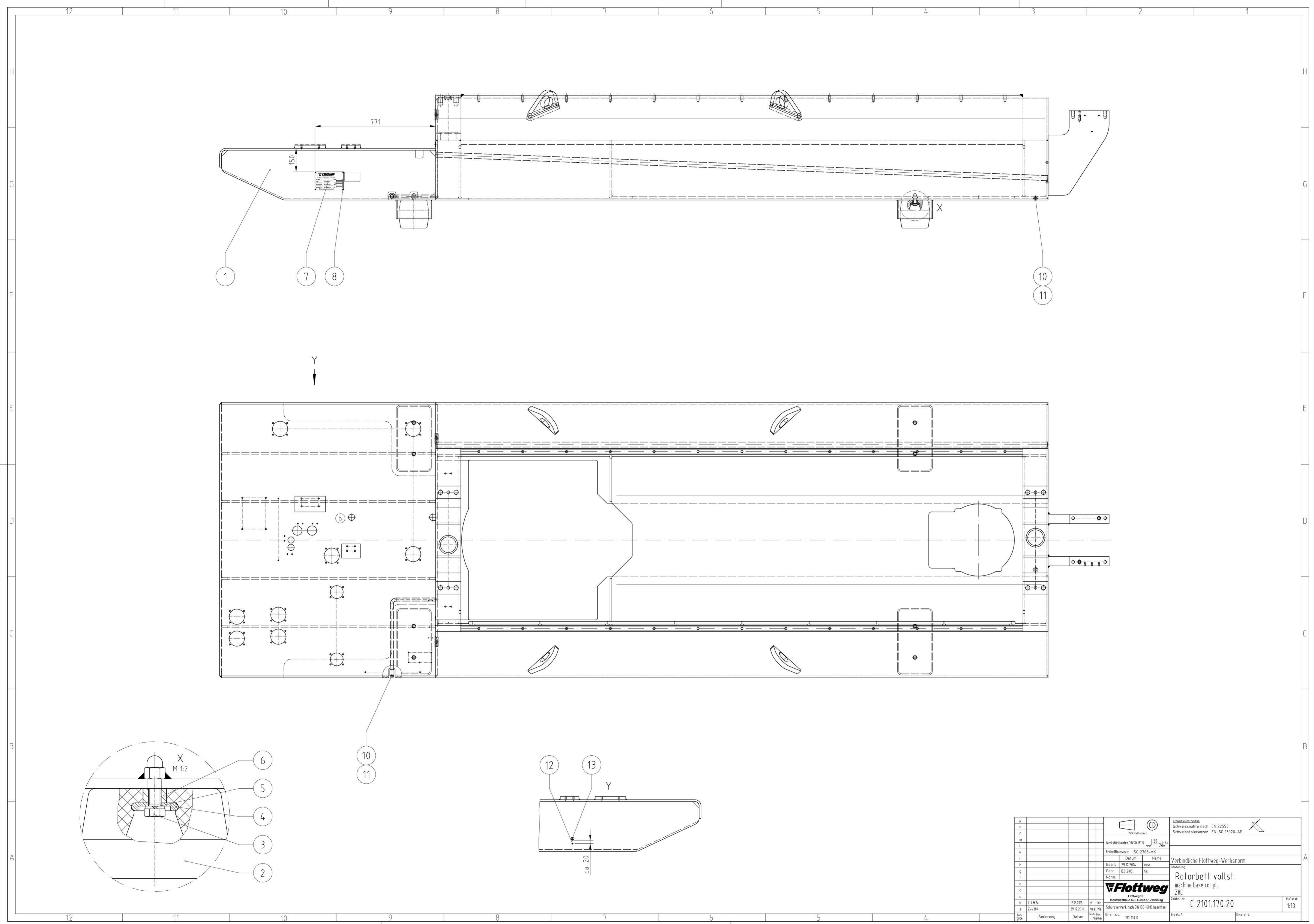
Pos.	Component	Component description	Document
	1001.5892	scroll complete	1001-5892/000/-
.1	1001.5893	1 PC scroll	1001-5893/000/A
.2	0039.059.41	6 PC hexagon socket set screw	



p								
o								
n								
m								
l								
k								
i					Datum	Name		
h					Bearb.	26.08.2019	bma	
g					Gepr.	17.09.2019	rom	
f					Norm.			
e					Flottweg			
d					Flottweg SE Industriestraße 6-8 D-84137 Vilshofen			
c					Schutzvermerk nach DIN ISO 16016 beachten			
b								
a								
Ausgabe	Änderung	Datum	Bearb./Gepr. Name	Entst. aus:	Ersatz f.:	Ersetzt d.:		

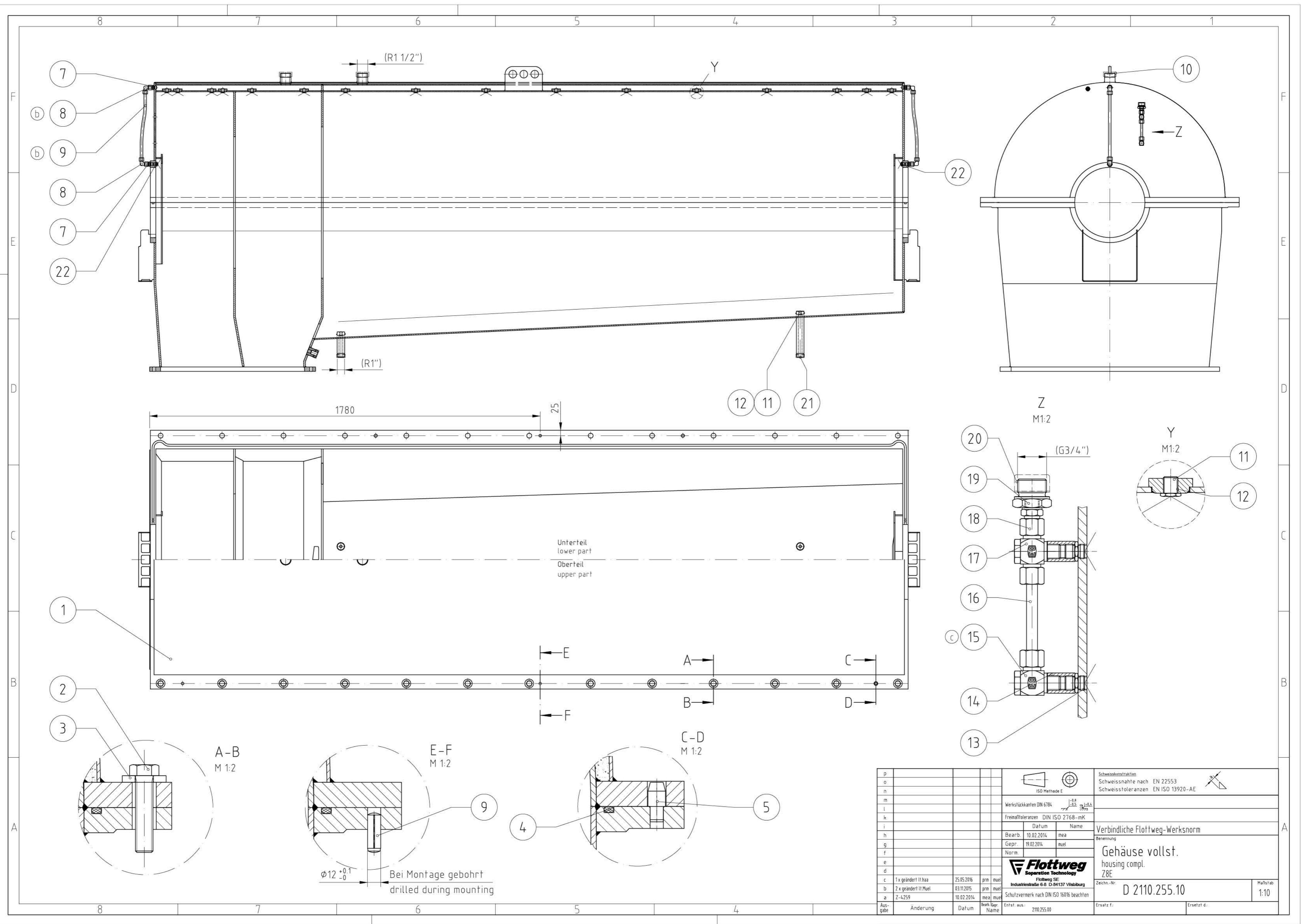
>>> Parts list <<<

Pos.	Component		Component description	Document
	2101.170.20		machine base	C 2101.170.20/000/B
..1	2301.504.10-01	1 PC	machine base	
..2	1065.011.11-03	8 PC	rubber spring	E 1065.011.11-03/000/B
..3	0044.253.36	8 PC	hexagon screw	
..4		8 PC	included in hollow rubber spring	
..5	0011.015.54	8 PC	spring washer	
..6		8 PC	included in hollow rubber spring	
..7	1042.001.40-01	1 PC	name plate	E 1042.001.40-01/000/F
..8	0056.023.41-01	4 PC	round head grooved pins	
..10	0035.036.41	2 PC	locking screw	
..11	0094.032.21	2 PC	sealing ring	
..12	1634.080.00	1 PC	plug	
..13	1042.245.00	1 PC	reference plate	



>>> Parts list <<<

Pos.	Component	Component description	Document
	1001.5881	housing complete	D 2110.255.10/000/C
.1	2310.634.10-01	1 PC case	A 2310.634.10/000/C
.2	0043.130.41	26 PC hexagon screw	
.3	0101.009.41	26 PC disc	
.4	1001.3921	8.400 MM gasket cord	
.5		2 PC see parts list 2310.xxx.xx	
.6	0055.107.41	2 PC grooved pin	
.7	1004.084.41-01	4 PC straight pipe union	
.8	1104.272.41	4 PC adjust.angular screw joint	
.9	2632.465.00-01	2 PC flush pipe	
.10	1109.291.00	2 PC screw cap	
.11	1075.198.41-01	19 PC full-cone wide-angle noz.	F 1075.198.41-01/000/A
.12		1 PC not applicable	
.13	1075.051.41	2 PC full-cone wide-angle noz.	
.14	0075.002.41	2 PC sleeve	
.15	1004.1038	1 PC swing pipe union	
.16	2632.368.00	1 PC pipe	
.17	1004.1039	1 PC swing pipe union	
.18	1104.391.41	1 PC tube fitting	
.19	1204.119.41	1 PC reducer support	
.20	1109.289.00	1 PC screw cap	
.21	1109.290.00	3 PC screw cap	
.22	1075.202.41	2 PC full-cone wide-angle noz.	



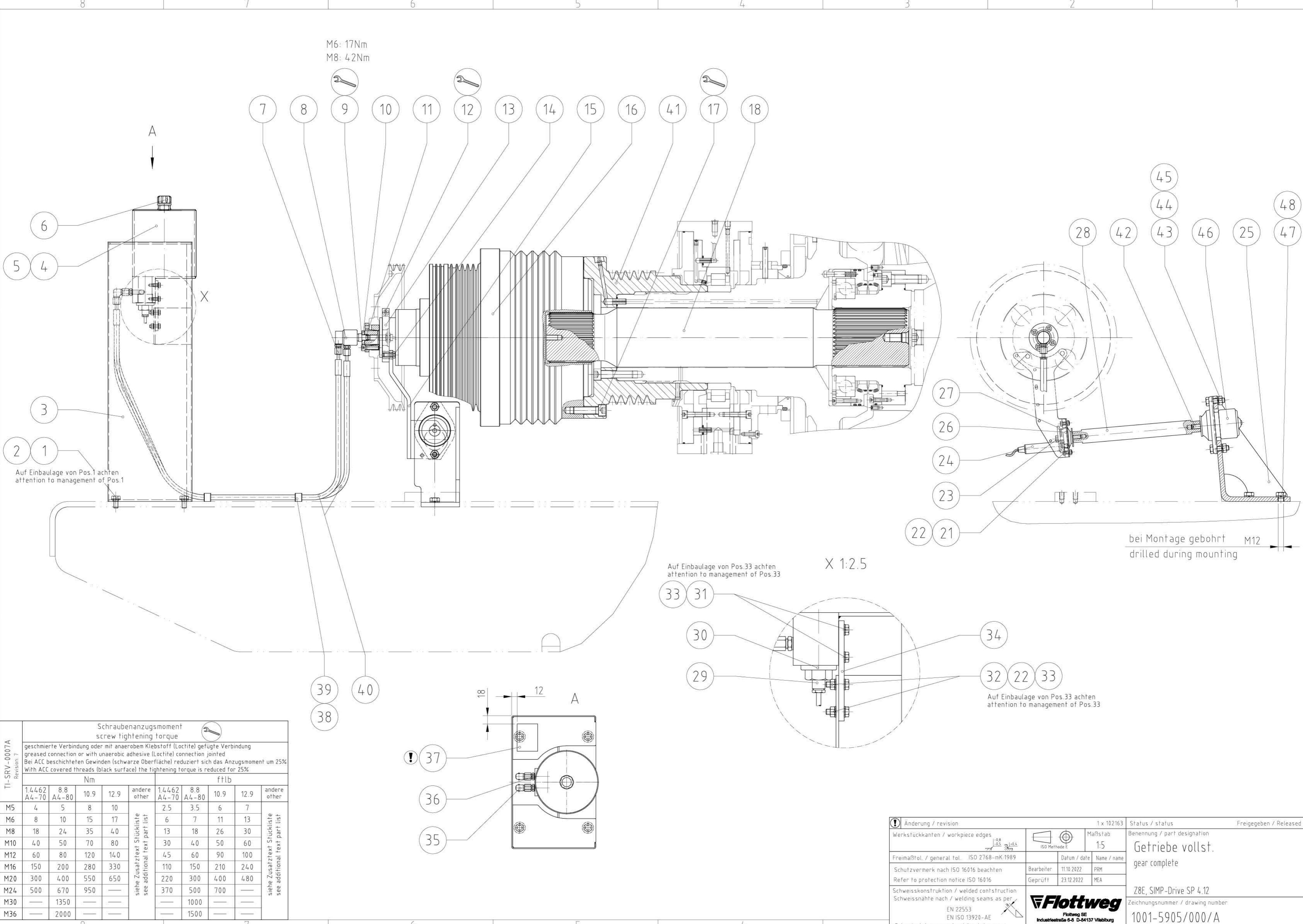
>>> Parts list <<<

Pos.	Component	Component description		Document
	1001.5905		gear complete	1001-5905/000/A
..1	1701.563.00	4 PC	contact disc	
..2	0044.161.36	4 PC	hexagon screw	
..3	2302.672.01	1 PC	support	C 2302.672.00/000/C
..4	2307.038.50-01	1 PC	expansion tank	D 2307.038.50-01/000/C
..5	1002.195.00	1 L	gear oil	
..6	1151.011.00	1 PC	venting screw	
..7	1004.027.41	2 PC	straight pipe union	
..8	1147.012.10	1 PC	rotary grease connection	E 1147.012.10/000/A
..9	1229.007.00	1 PC	tension set	
..10	2608.697.00	1 PC	disc	F 2608.697.00/000/-
..11	1012.186.60	1 PC	O-ring	
..12	0037.085.36	1 PC	head cap screw	
..13	2625.977.30	1 PC	clamp collar	F 2625.977.30/000/A
..14	0044.132.41	2 PC	hexagon screw	
..15	1001.5906	1 PC	torque support	1001-5906/000/-
..16	1031.581.40	1 PC	gear	C 1031.581.40/000/B
..17	0037.147.36	16 PC	head cap screw	
..18	2616.119.00	1 PC	drive shaft	D 2616.119.00/000/C
..21	0044.106.36	2 PC	hexagon screw	
..22	0045.008.50	6 PC	hexagon nut	
..23	0043.056.36	1 PC	hexagon screw	
..24	1021.132.10	1 PC	vibration sensor	
..25	1001.4823	1 PC	mounting bracket	1001-4823/000/-
..26	1010.018.01	1 PC	MEGI cone	
..27	2627.268.00	1 PC	disc	F 2627.268.00/000/B
..28	1001.4397	1 PC	bar	F 2627.454.10/000/D
..29	1125.027.50	1 PC	float switch	
..30	0094.052.21	1 PC	sealing ring	
..31	0044.104.36	4 PC	hexagon screw	
..32	0044.108.36	4 PC	hexagon screw	
..33	1701.317.00	12 PC	contact disc	
..34	2627.961.00	1 PC	support strip	F 2627.961.00/000/-
..35	1104.269.41	2 PC	threaded angle joint	
..36	1004.081.41	2 PC	straight pipe union	
..37	1003.9423	1 PC	reference plate	F 1042.992.00/000/C
..38	0037.068.36	2 PC	head cap screw	
..39	1025.592.00	2 PC	pipe clip	
..40	1078.361.41-08	2 PC	hose line	
..41	2603.264.10-01	1 PC	gear flange	C 2603.264.10-01/000/A
..42	0038.077.41	1 PC	hexagon socket set screw	
..43	0044.164.41	2 PC	hexagon screw	

>>> Parts list <<<

Pos.	Component	Component description		Document
	1001.5905	gear complete		1001-5905/000/A
..44	0045.011.41	2 PC	hexagon nut	
..45	0011.012.41	2 PC	spring washer	
..46	1010.058.00	1 PC	hydraulic mount	
..47	0044.190.41	3 PC	hexagon screw	
..48	0011.013.41	3 PC	spring washer	

8 7 6 5 4 3 2 1

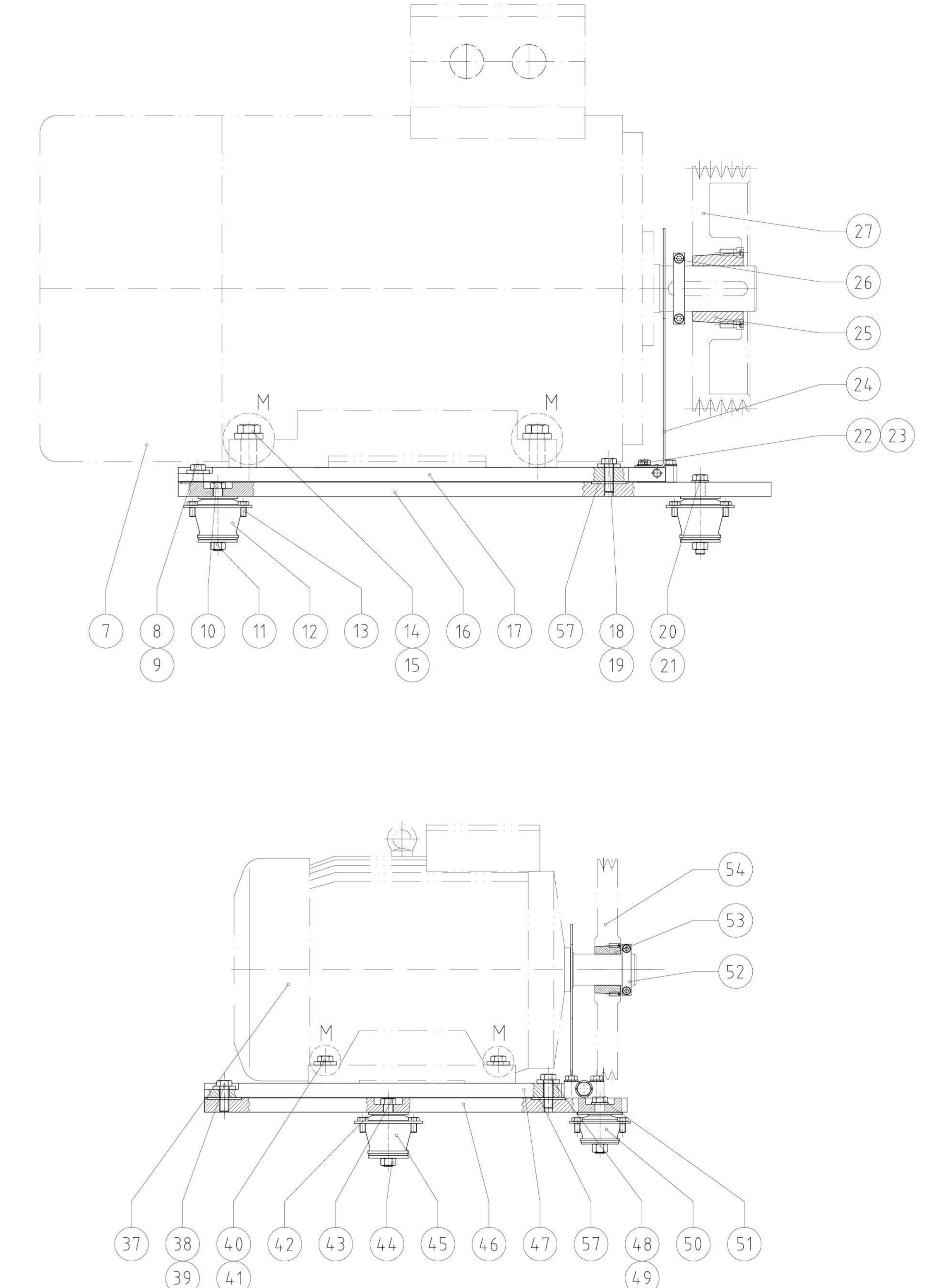
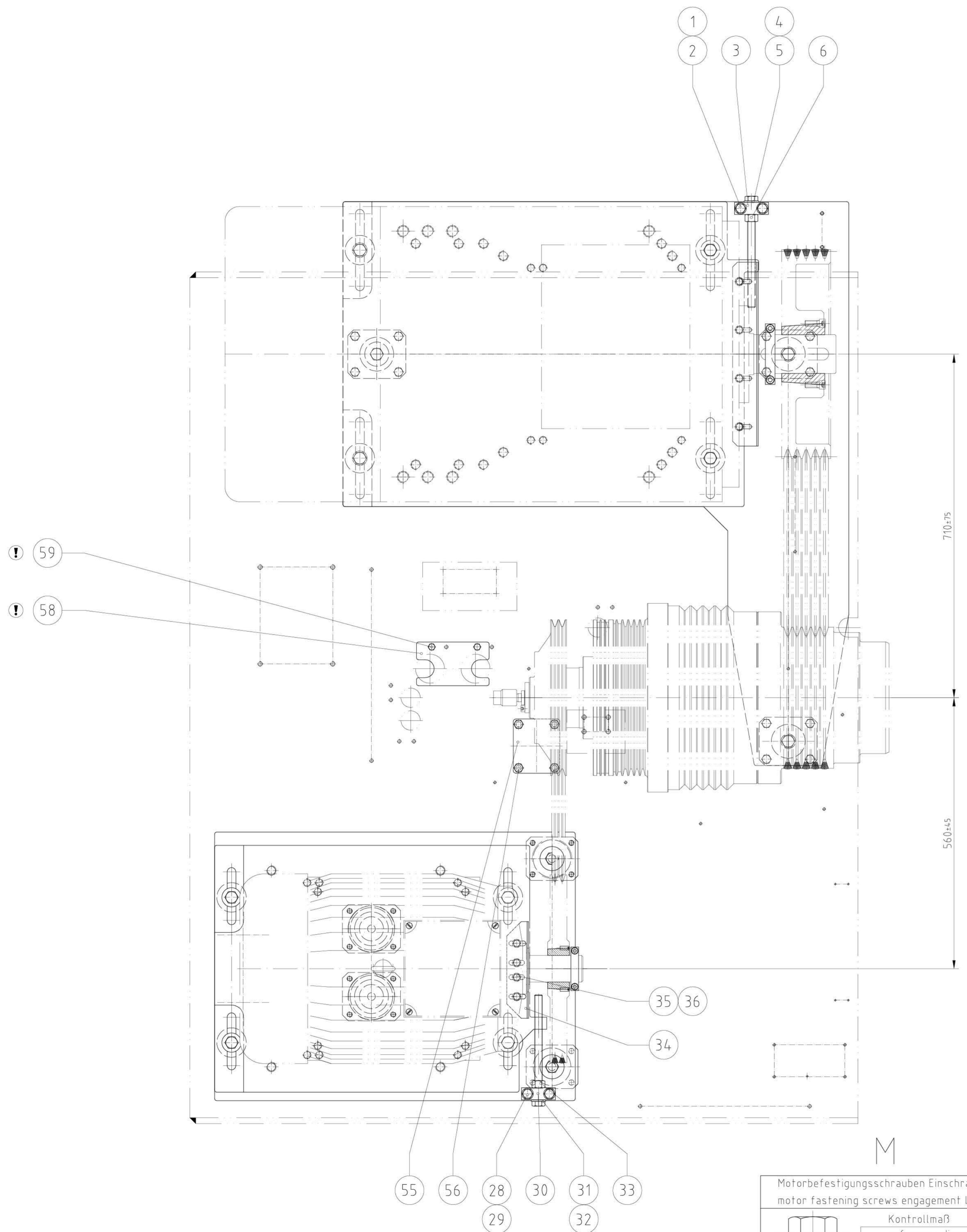


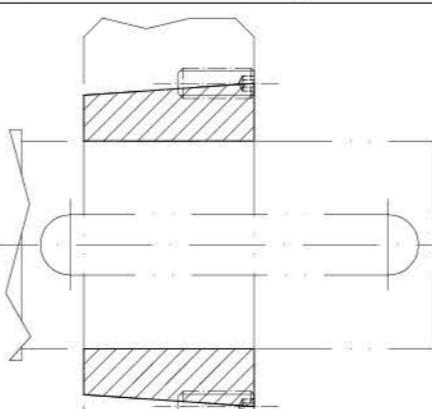
>>> Parts list <<<

Pos.	Component	Component description	Document
	2103.484.10	drive complete	C 2103.484.10/000/B
..1	0043.086.36	2 PC hexagon screw	
..2	0010.015.54	2 PC disc	
..3	2623.909.00	1 PC strain block	F 2623.909.00/000/B
..4	0044.617.36	1 PC hexagon screw	
..5	0010.017.54	1 PC disc	
..6	0045.014.50	1 PC hexagon nut	
..7		1 PC see parts list #xxx.xxx.xx	
..8	0044.252.36	2 PC hexagon screw	
..9	0101.009.54	2 PC disc	
..10	0043.137.36	1 PC hexagon screw	
..11	0045.014.50	3 PC hexagon nut	
..12	1010.044.01	3 PC MEGI conus	
..13	0044.159.36	12 PC hexagon screw	
..14	0043.204.36	4 PC hexagon screw	
..15	0101.013.54	4 PC disc	
..16	2628.287.50	1 PC intermediate plate	D 2628.287.50/000/D
..17	2625.551.50	1 PC motor plate	D 2625.551.50/000/D
..18	0196.001.36	2 PC hexagon tight fit screw	
..19	0101.009.54	2 PC disc	
..20	0043.139.36	2 PC hexagon screw	
..21	0010.017.40	2 PC disc	
..22	0044.128.41	4 PC hexagon screw	
..23	0010.013.41	4 PC disc	
..24	2627.807.30	1 PC cover sheet	5004.8221/000/-
..25	1229.017.00	1 PC clamping bushing	
..27		1 PC see speed diagram	
..28	0043.086.36	2 PC hexagon screw	
..29	0010.015.54	2 PC disc	
..30	2623.909.00	1 PC strain block	F 2623.909.00/000/B
..31	0044.617.36	1 PC hexagon screw	
..32	0010.017.54	1 PC disc	
..33	0045.014.50	1 PC hexagon nut	
..34	2628.867.20	1 PC cover sheet	5004.7690/000/-
..35	0044.128.41	4 PC hexagon screw	
..36	0010.013.41	4 PC disc	
..37		1 PC see parts list #xxx.xxx.xx	
..38	0044.252.36	2 PC hexagon screw	
..39	0101.009.54	2 PC disc	
..40	0044.254.36	4 PC hexagon screw	
..41	0101.009.54	4 PC disc	
..42	0044.159.36	16 PC hexagon screw	

>>> Parts list <<<

Pos.	Component	Component description	Document
	2103.484.10	drive complete	C 2103.484.10/000/B
..43	0043.137.36	2 PC hexagon screw	
..44	0045.014.50	4 PC hexagon nut	
..45	1010.044.01	2 PC MEGI conus	
..46	2628.296.20	1 PC intermediate plate	D 2628.296.20/000/E
..47	2628.286.50	1 PC motor plate	C 2628.286.50/000/D
..48	0196.001.36	2 PC hexagon tight fit screw	
..49	0101.009.54	2 PC disc	
..50	1010.042.00	2 PC MEGI conus	
..51	0043.134.36	2 PC hexagon screw	
..52	2908.081.00	1 PC clamp collar	F 2908.081.00/000/A
..53	1229.023.00	1 PC clamping bushing	
..54		1 PC see speed diagram	
..55	2627.909.00	1 PC cover plate	F 2627.909.00/000/A
..56	0044.157.36	4 PC hexagon screw	
..57	0102.014.54	8 PC disc	
..58	1004.1834	1 PC cover plate	5008.7253/000/-
..59	0044.128.36	2 PC hexagon screw	



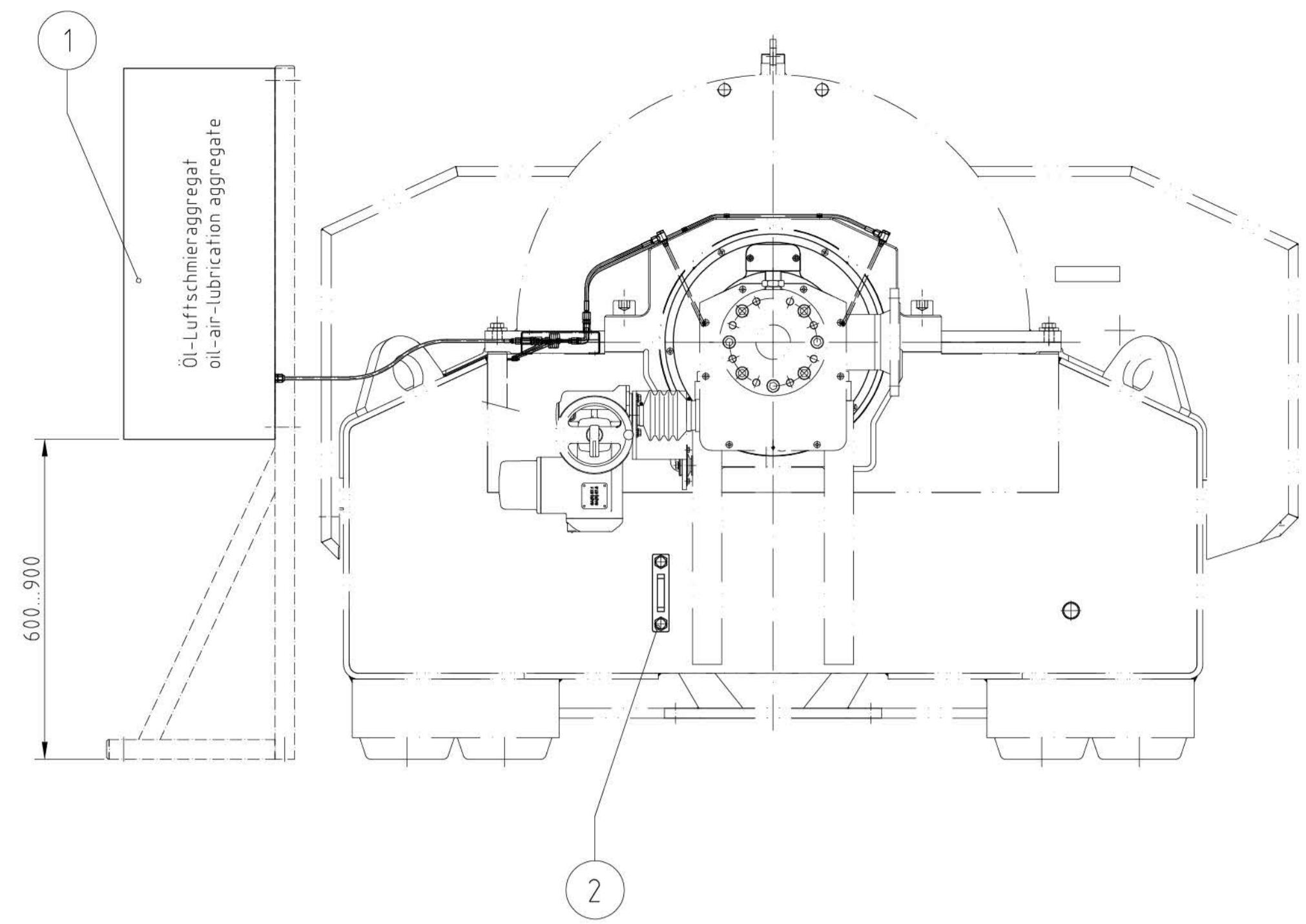
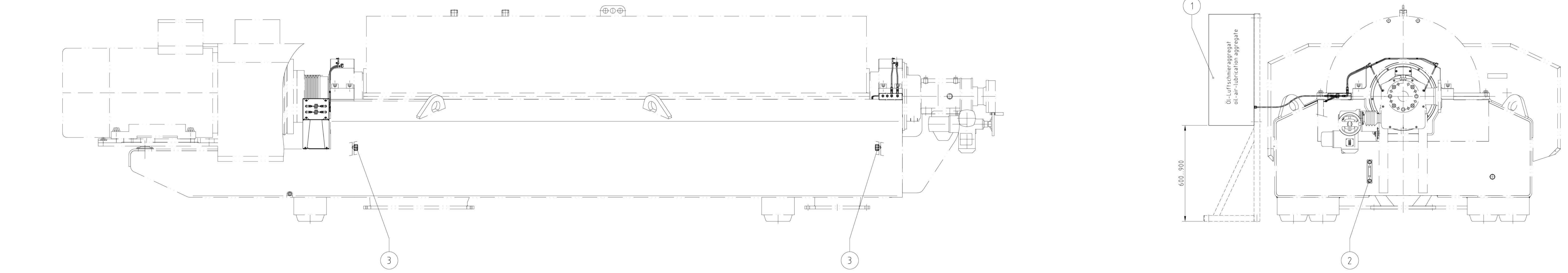
<p>Schraubenanzugsmoment screw tightening torque</p> 	<p>TI-SRV-0007D Revision: 1</p>	
<p>Taper-Lock-Spannbuchsen taper-lock-clamping bush</p> 	<p>geschmierte Verbindung greased connection</p>	
Typ	Nm	ftlb
1108	5,6	4,1
1610	20	15
2517	50	35
3020	90	65
3535	115	85
4545	190	140

Motorbefestigungsschrauben Einschraublng motor fastening screws engagement length	
	Kontrollma reference dimension
M10	8
M12	9
M16	10
M20	12
M24	14

! Änderung / revision	2x 102519		Status / status	Freigegeben / Released
Werkstückkanten / workpiece edges 		Maßstab 1:5	Benennung / part designation Antrieb vollst. drive complete	
Freimaßtol. / general tol. ISO 2768-mK:1989		Datum / date	Name / name	
Schutzvermerk nach ISO 16016 beachten Refer to protection notice ISO 16016	Bearbeiter Geprüft	23.03.2022 05.04.2022	FUA MUEL	
Schweisskonstruktion / welded construction Schweißnähte nach / welding seams as per EN 22553 EN ISO 13920-AE 	Flottweg Flottweg SE Industriestraße 6-8 D-84137 Vilshofen		Z8E, SP 3.10	Zeichnungsnr. / drawing number C 2103.484.10/000/B

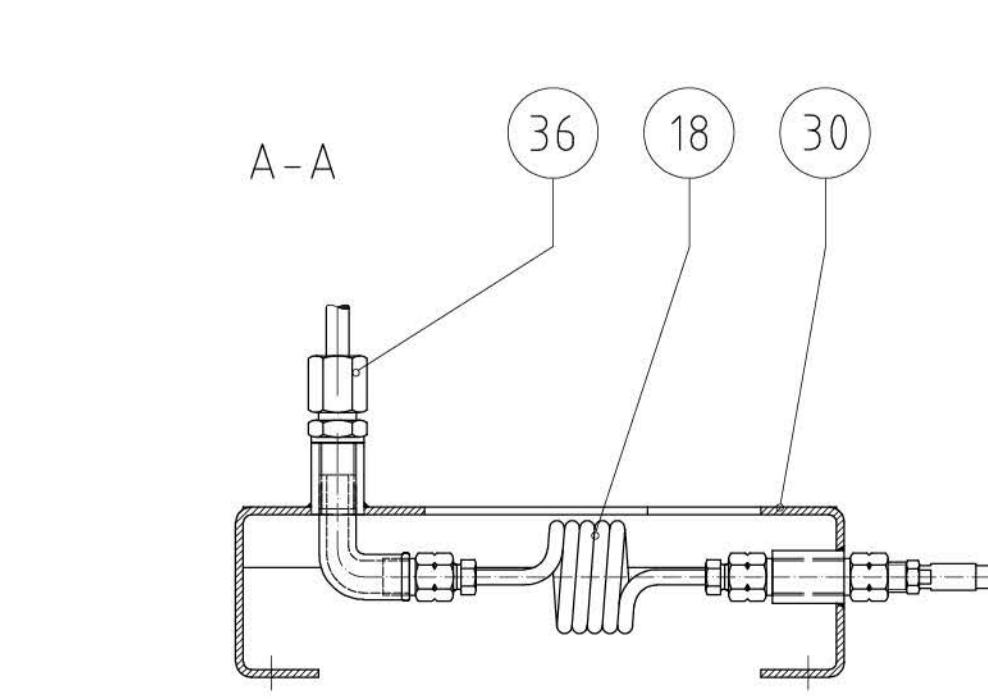
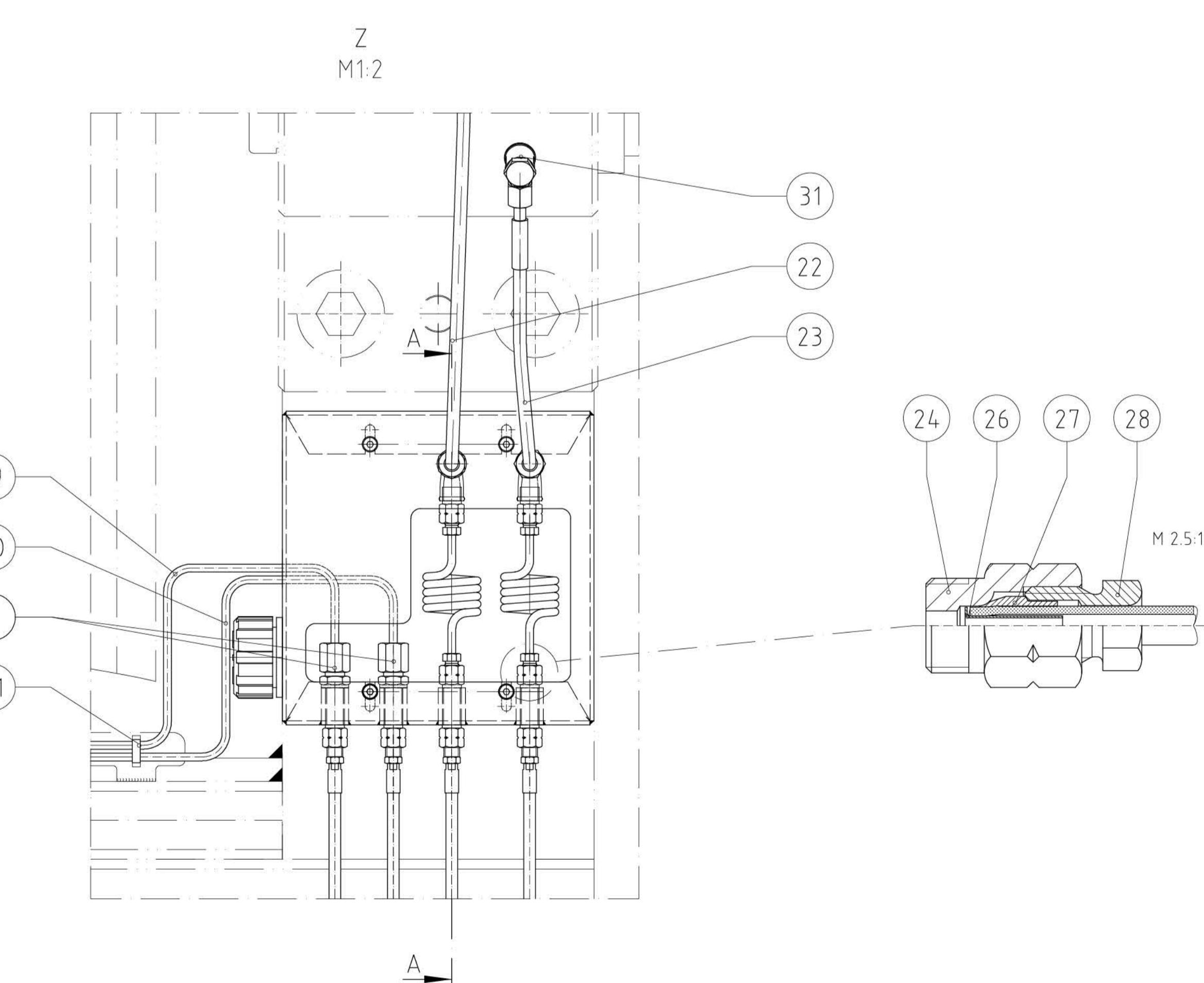
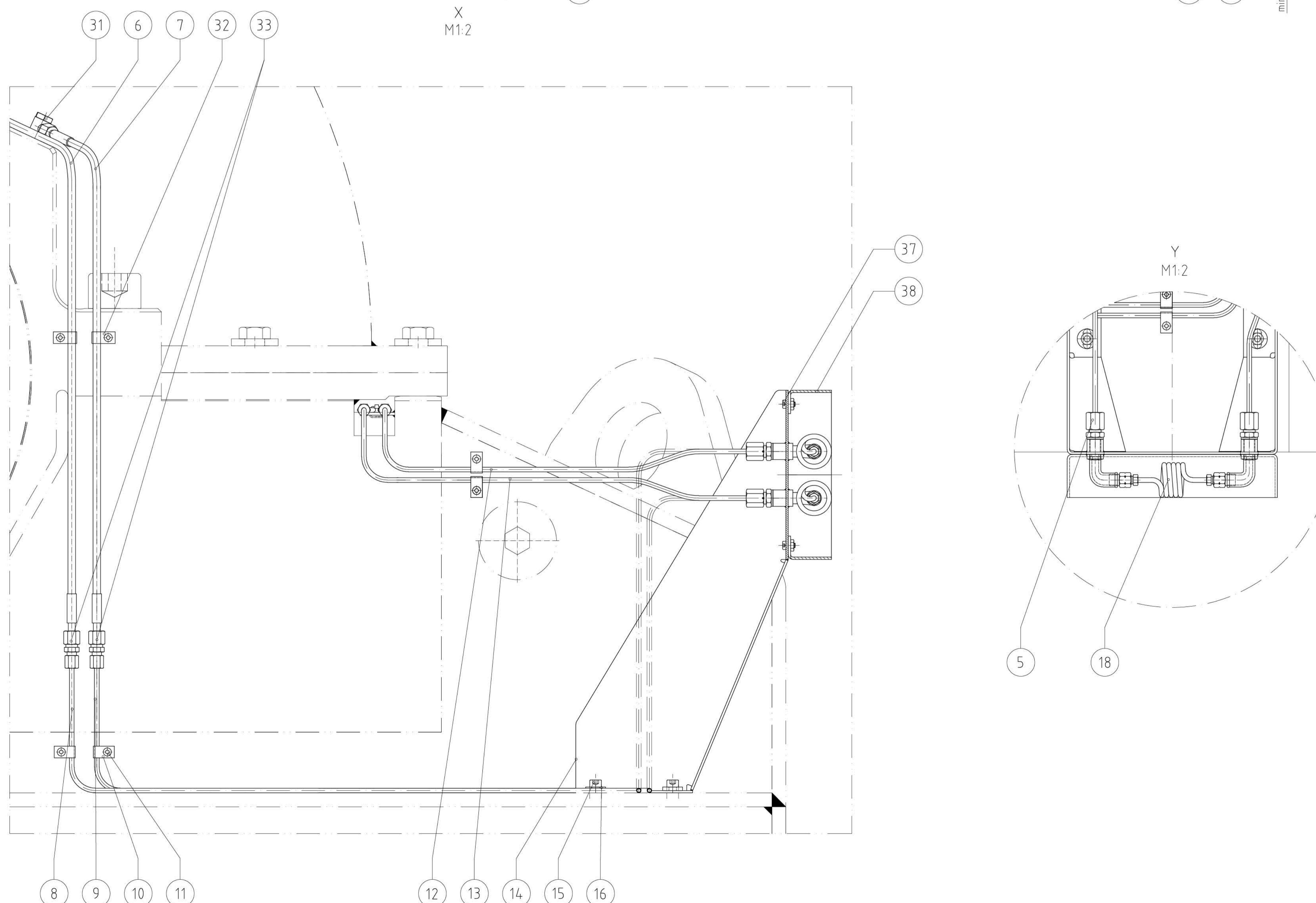
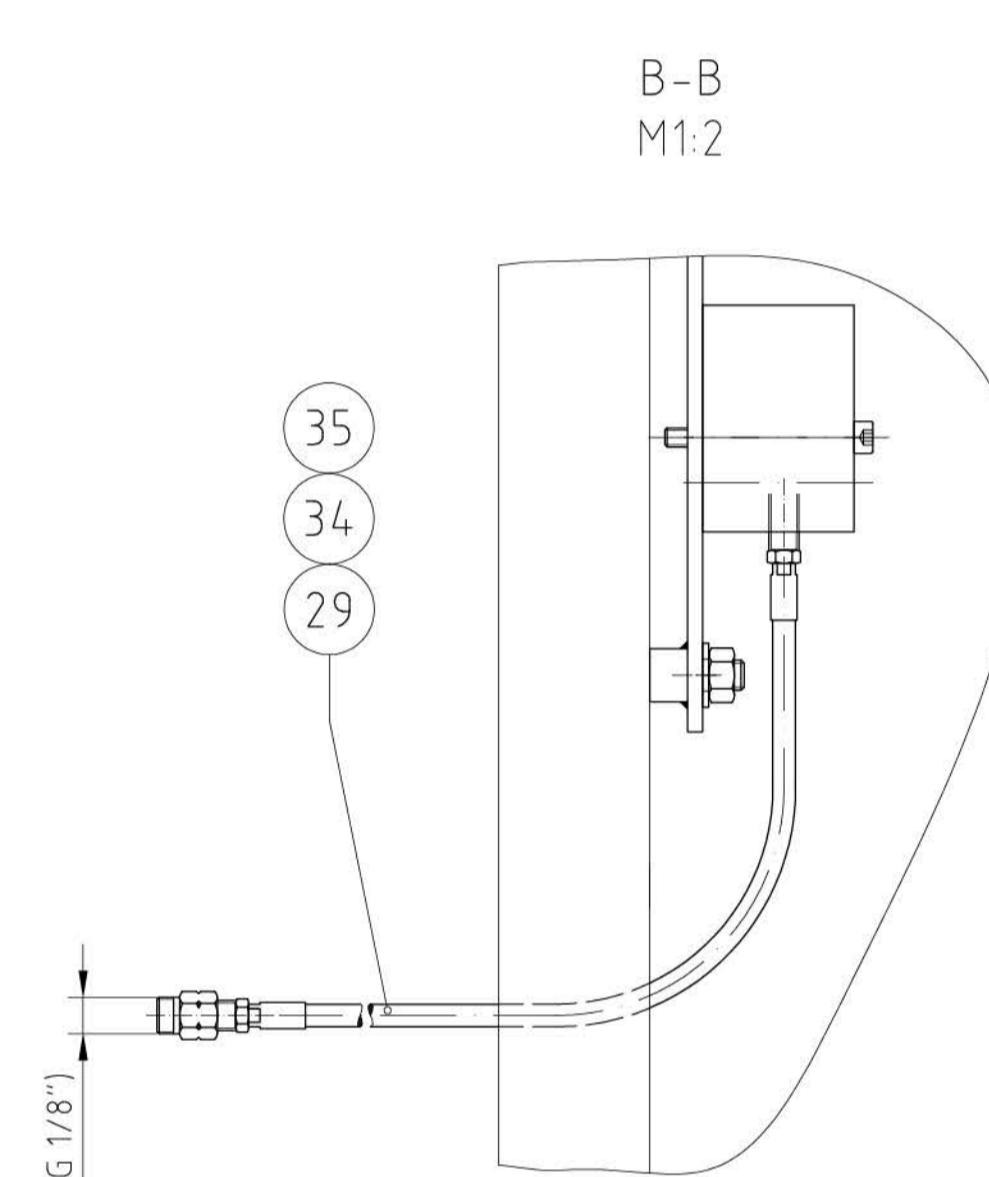
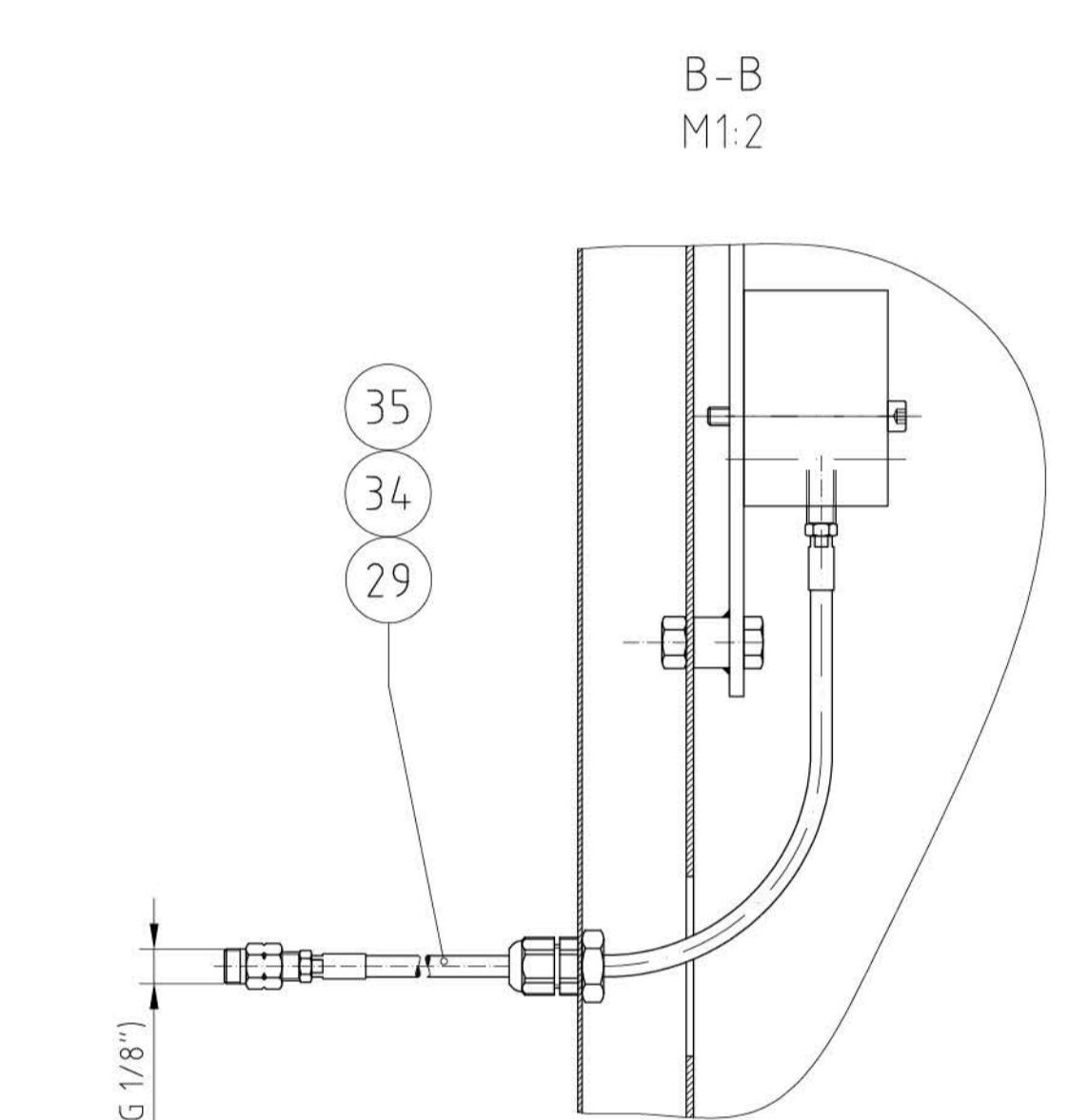
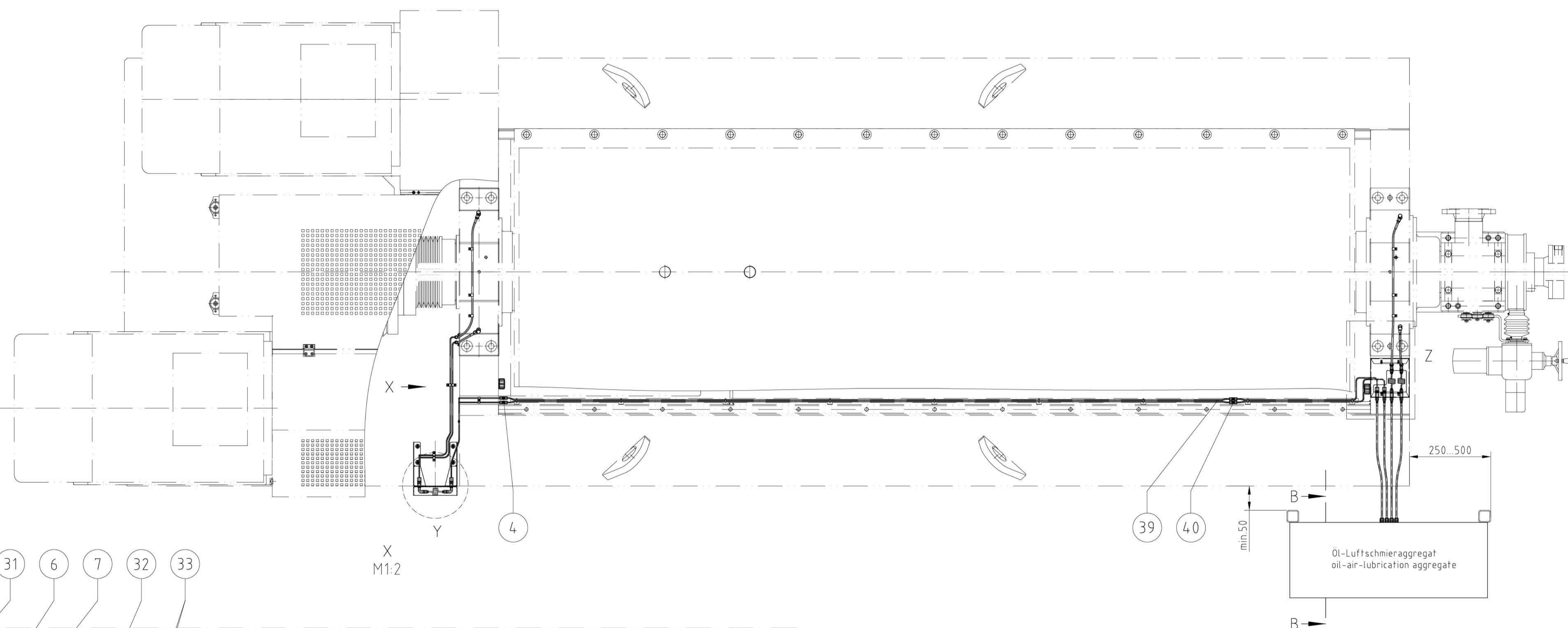
>>> Parts list <<<

Pos.	Component	Component description	Document
	1000.8209	oil-air lubrication	B 2107.246.40/000/C
..1	1000.7300	1 PC oil-air lubrication unit	5026.0259/000/-
..2	1150.001.00-01	1 PC oil gauge	
..3	2619.409.00	2 PC venting screw	F 2619.409.00/000/A
..4	1004.300.41	2 PC straight union	
..5	1004.026.41	6 PC straight pipe union	
..6	1078.562.00-04	1 PC hose line	
..7	1078.562.00-02	1 PC hose line	
..8	2632.245.00	1 PC pipe	
..9	2632.246.00	1 PC pipe	
..10	0037.046.41	18 PC head cap screw	
..11	1025.229.41	10 PC pipe clip	
..12	2632.247.00	1 PC pipe	
..13	2632.248.00	1 PC pipe	
..14	2631.930.10	1 PC sheet metal	E 2631.930.10/000/B
..15	0037.068.41	4 PC head cap screw	
..16	0101.004.41	4 PC disc	
..18	1165.105.00	4 PC helix	
..19	2632.249.10-01	1 PC pipe	
..20	2632.250.10-01	1 PC pipe	
..21	1702.250.00	9 PC cable tie	
..22	1078.562.00-01	1 PC hose line	
..23	1078.562.00-03	1 PC hose line	
..24	1165.169.41	12 PC connector	
..26	1165.102.00	8 PC inserting sleeve	
..27	1165.103.00	8 PC tapered ring	
..28	1165.104.41	8 PC male fitting for pipes	
..29	1078.572.00-04	4 PC hose	F 1078.572.00-01/000/-
..30	2631.932.00	1 PC cover	D 2631.932.00/000/B
..31	1002.2999	4 PC swing pipe union	
..32	1025.231.41	8 PC clamp	
..33	1104.717.41	2 PC straight reduction	
..34	1078.572.00-03	4 PC hose	F 1078.572.00-01/000/-
..35	1165.108.00	4 PC tube connection	
..36	1004.081.41	2 PC straight pipe union	
..37	0037.047.36	4 PC head cap screw	
..38	2631.931.20	1 PC sheet metal	E 2631.931.20/000/A
..39	1201.610.41	6.000 MM pipe	
..40	1004.300.41	2 PC straight union	



Mit Schutzgehäuse
with protective housing

Ohne Schutzgehäuse
without protective housing



Änderung / revision	DIS entspricht (Änderung)	Status / status
Werkstückkanten / workpiece edges	Maßstab	Freigegeben / Released
24	1:10	
Freimålto / general tol.	ISO 2768-ink 1989	Bezeichnung / part designation
Schweißnaht nach ISO 14661 beachten	ISO 14661	Oil-Luftschmierung
oder gen. Maß		oil-air lubrication
Schweißkonstruktion / welded construction		
Schweißnaht nach / welding seams as per		
EN 2553		
EN ISO 1919-AC		
Schweißtoleranz / welding tolerances		ZB#
		Zeichnungsnummer / drawing number
		B 2107.246.40/000/C

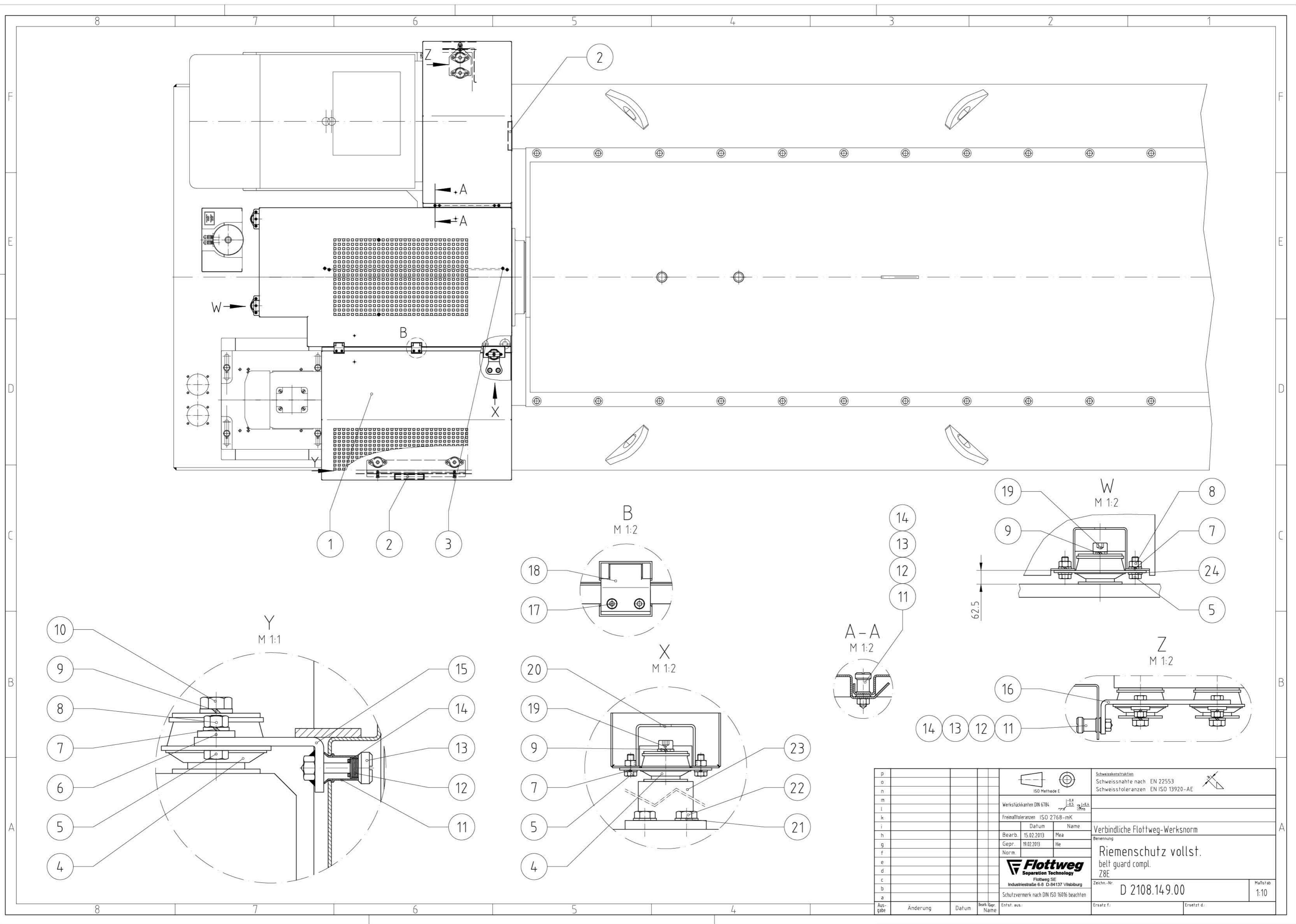
Fleottweg

Fleottweg

Industrietechnik B-D-Ö-DE-127 Weilburg

>>> Parts list <<<

Pos.	Component	Component description	Document
	2108.149.20	belt guard complete	D 2108.149.00/000/-
..1	2308.167.20	1 PC belt guard	E 2308.167.20/000/A
..2	1226.029.00	2 PC recess handle	
..3	1226.010.00	4 PC push-button-buffer	
..4	1010.018.01	8 PC MEGI cone	
..5	0044.106.41	16 PC hexagon screw	
..6	0101.004.41	8 PC disc	
..7	0011.009.41	16 PC spring washer	
..8	0045.008.41	12 PC hexagon nut	
..9	0011.010.36	8 PC spring washer	
..10	0043.054.36	4 PC hexagon screw	
..11	1226.022.00	5 PC bushing	
..12	1226.023.00	5 PC spring	
..13	1226.024.00	5 PC captive screw	
..14	1226.012.00	5 PC split lock ring	
..15	2915.303.00	1 PC mounting bracket	E 2915.303.00/000/B
..16	2915.308.00	1 PC mounting bracket	F 2915.304.00/000/A
..17	0132.019.41	12 PC hex.s.countersunk h.cap screw	
..18	1226.014.00	3 PC hinge	
..19	0037.085.36	4 PC head cap screw	
..20	2915.311.00	2 PC fixing strap	F 2915.311.00/000/A
..21	0010.014.54	4 PC disc	
..22	0044.159.36	4 PC hexagon screw	
..23	2631.378.10	2 PC angle bracket	E 2631.378.10/000/A
..24	0010.011.00	4 PC disc	



>>> Parts list <<<

Pos.	Component	Component description	Document
	2303.974.00	bowl belt drive	
.1	2629.345.00	1 PC V-belt pulley	D 2629.345.00/000/J
.2	0096.068.00	5 PC V-belts	
.4	1042.080.00	1 PC arrow for direction of rotation	F 1042.080.00/000/A F 1042.080.00/000/A
.5	0056.019.54	2 PC round head grooved pins	

>>> Parts list <<<

Pos.	Component	Component description	Document
	2302.749.00	conveyer belt drive	
.1	2629.127.00	1 PC V-belt pulley	E 2629.127.00/000/F
.2	2607.851.20	1 PC V-belt pulley	D 2607.851.20/000/O
.3	0096.022.00	2 PC V-belts	
.4	1042.080.00	1 PC arrow for direction of rotation	F 1042.080.00/000/A F 1042.080.00/000/A
.5	0056.019.54	2 PC round head grooved pins	

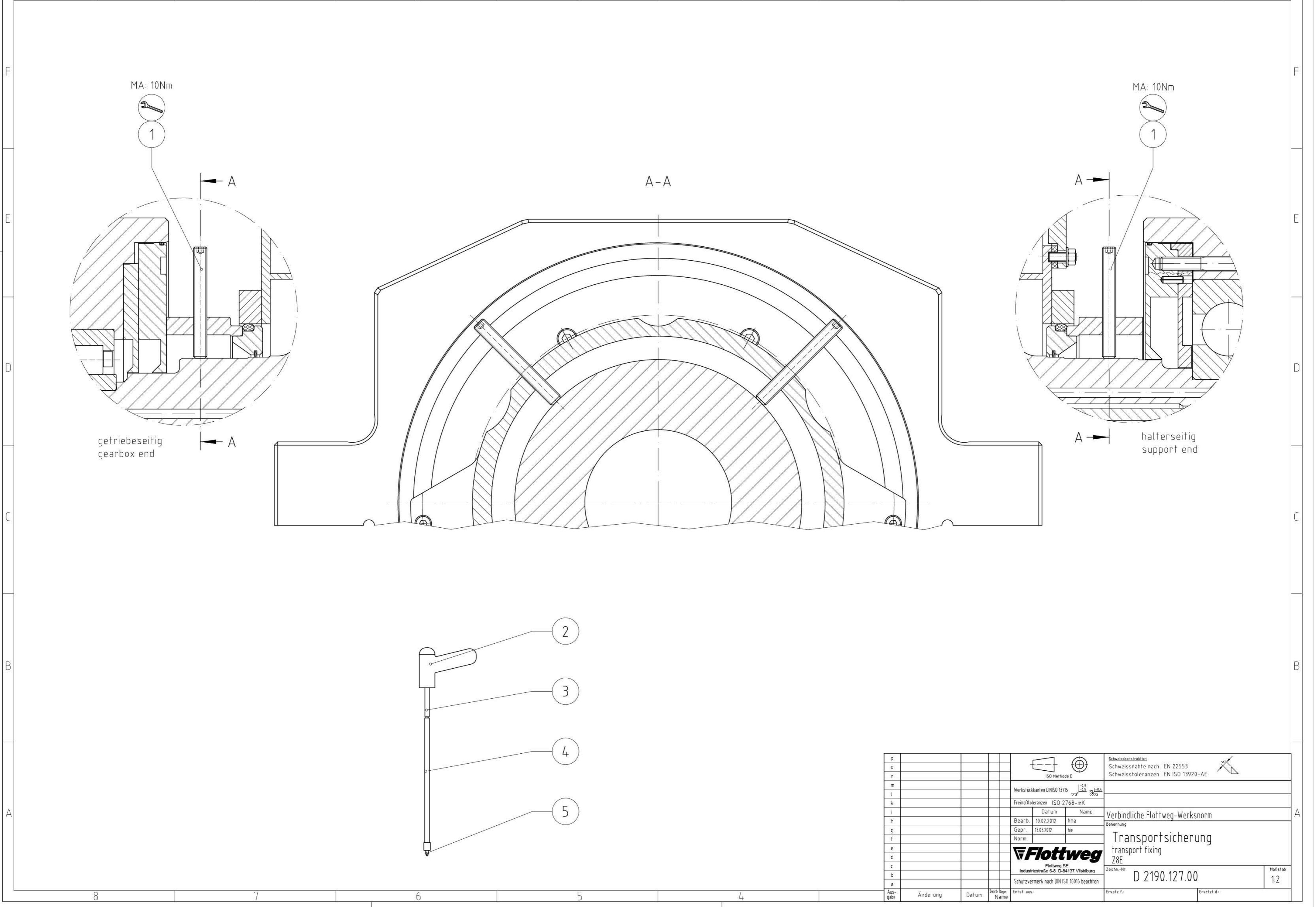
>>> Parts list <<<

Pos.	Component	Component description	Document
	1000.9471	tool	
..1	2390.203.00	1 PC toolbox filled	
..2	0030.025.00	1 PC double end box wrench	
..3	1630.027.05	1 PC socket wrench with handle	
..4	0036.012.00	1 PC hexagon screw driver	
..5	0036.013.00	1 PC hexagon screw driver	
..6	0036.015.00	1 PC hexagon screw driver	
..7	1630.039.13	1 PC outer circlip pliers	
..8	1630.042.13	1 PC outer circlip pliers	
..9	1630.026.13	1 PC inner circlips pliers	
..10	1630.052.14	1 PC punch	
..11	1007.063.00	1 PC ratchet reversible	
..12	1630.011.11-01	1 PC extension	
..13	1630.152.11	1 PC hexagonal insert	
..14	1630.137.11-01	1 PC hexagonal insert	
..15	0044.150.36	4 PC hexagon screw	
..16	0044.179.36	4 PC hexagon screw	
..17	0044.208.36	4 PC hexagon screw	
..18	0044.265.36	4 PC hexagon screw	
..19	0044.322.36	4 PC hexagon screw	
..20	2611.502.00	1 PC assembling aid	F 2611.502.00/000/B
..21	2390.286.00	1 PC puller assembly	D 2390.286.00/000/-
..22	2390.263.00	1 PC hose line	E 2390.263.00/000/C
..23	1000.9467	1 PC mounting device	1000-9467/000/-
..24	1000.9578	2 PC locking screw	1000-9578/000/-

>>> Parts list <<<

Pos.	Component	Component description	Document
	2190.127.00	transportation lock	D 2190.127.00/000/-
.1	2619.367.00	4 PC set screw	F 2619.367.00/000/A
.3	1630.516.00	1 PC reversing blade	
.4	1630.515.00	1 PC quick change bit holder	
.5	1630.514.00-01	1 PC hexagon ball head Bit	

8 7 6 5 4 3 2 1



>>> Parts list <<<

Pos.	Component	Component description	Document
	2129.182.20	bearing temp.control	F 2129.182.00-01/000/A
.1	1140.008.20	2 PC resistance thermometer	

F

E

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B

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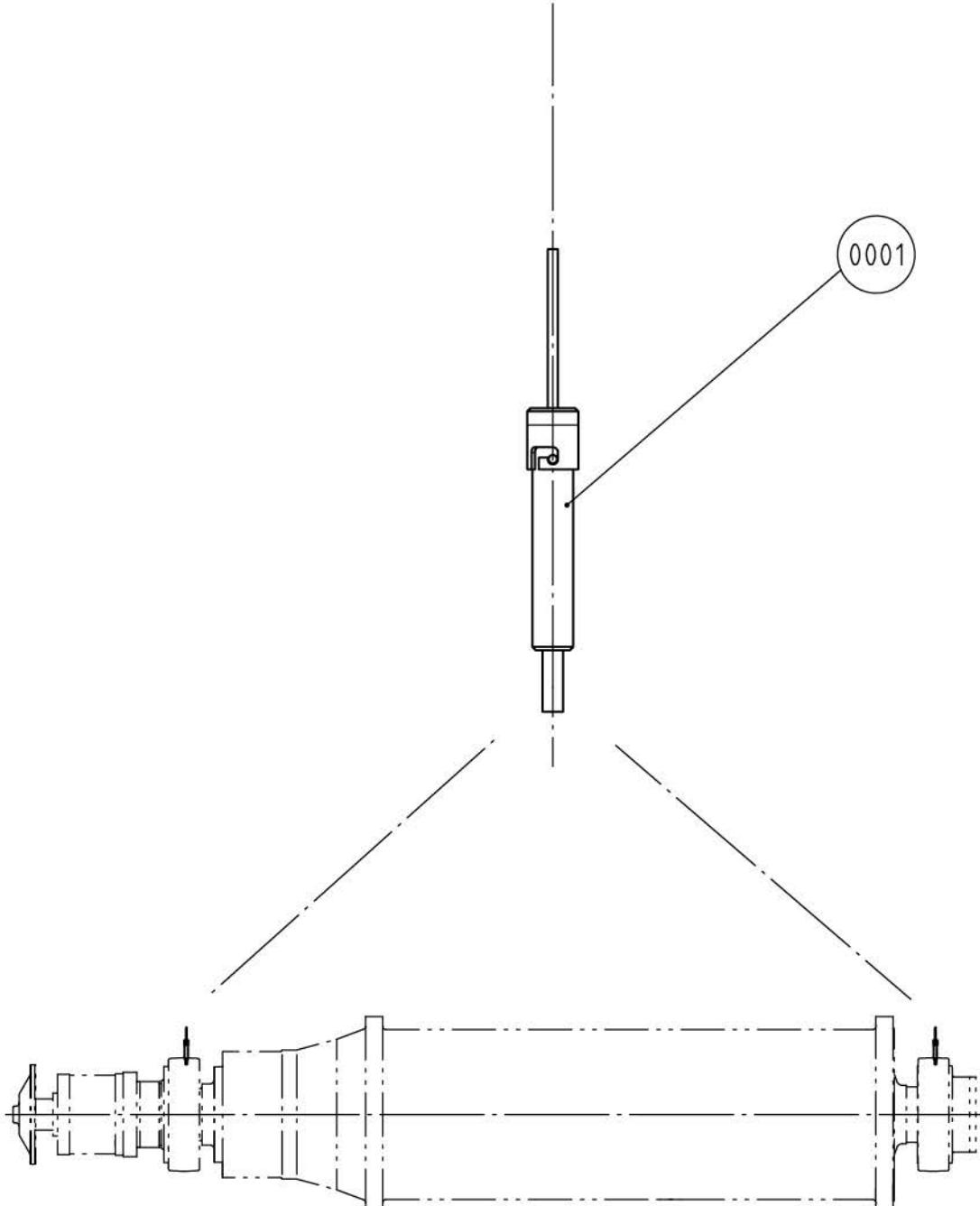
E

D

C

B

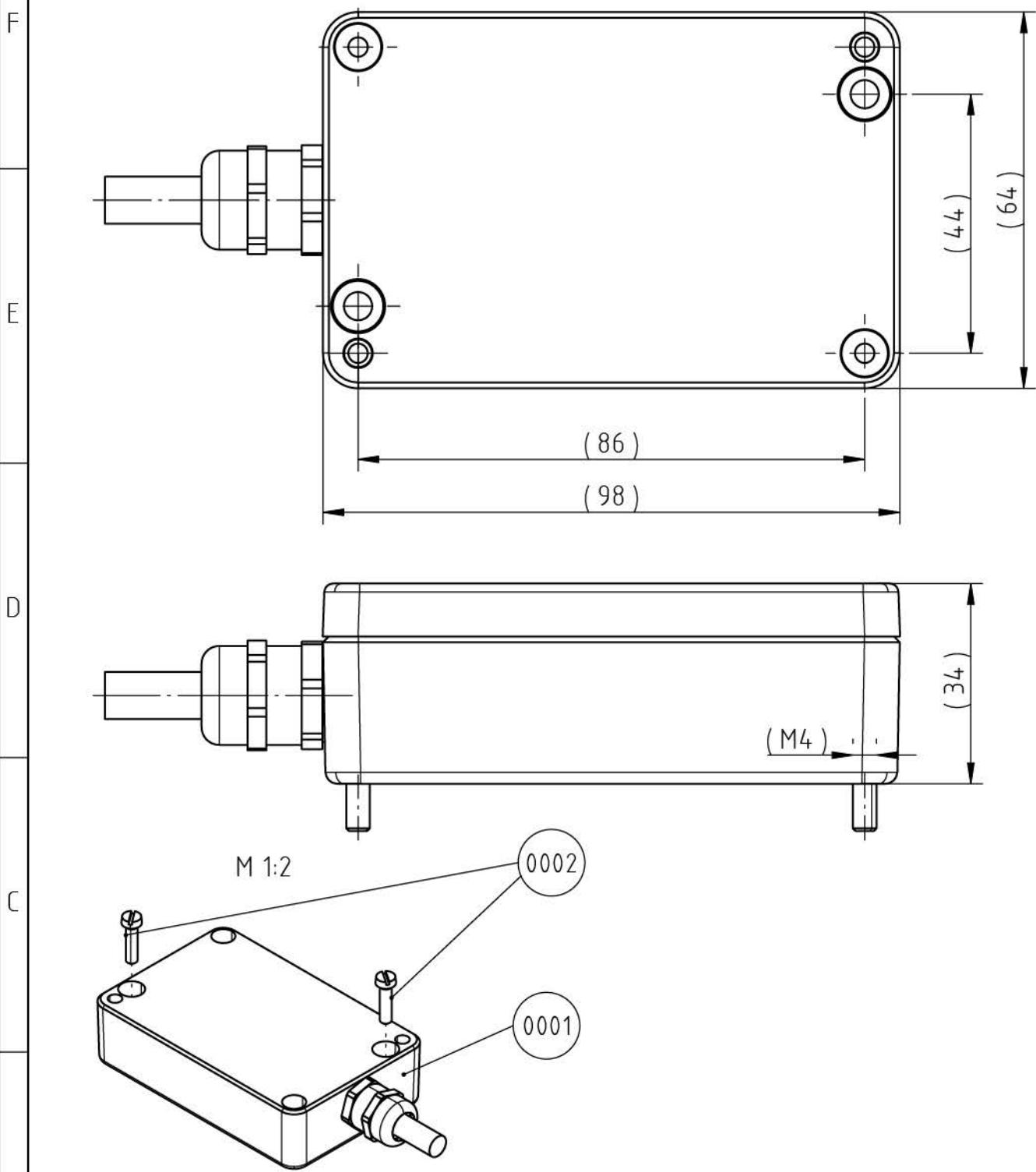
A



Änderung / revision:			Ersatz für dwg	Status / status:	Freigegeben / Released
Werkstückkanten workpiece edges	DIN EN ISO 13715 -0.8 -0.5 +0.4		Maßstab / scale ISO Methode E	1:2	Benennung / part designation Lagertemp.-Überwachung Bearing temperature monitoring
Freimäßtol. / general tol. ISO 2768-mK:1989			Datum	Name	
Schutzvermerk nach ISO 16016 beachten Refer to protection notice ISO 16016		Bearbeiter	09.08.2021	WIE	
Schweisskonstruktion / welded construction Schweißnähte nach DIN EN ISO 2553-A Schweißtoleranzen welding tolerances EN ISO 13920-AE		Geprüft	17.08.2021	MEA	
Flottweg Flottweg SE Industriestrasse 6-8 D-84137 Vilshburg			Zeichnungsnr. / drawing number F 2129.182.00-01/000/A		
			Blatt 1 von 1	sheet 1 from 1	

>>> Parts list <<<

Pos.	Component		Component description	Document
	2129.290.20		vibration monitoring system	F 2129.290.00/000/C
.1	1021.091.20	1 PC	vibration pick up	
.2	0004.137.41	2 PC	slotted cylinder screw	
.3		1 PC	layout drawing	



Änderung / revision:		Ersatz für dwg		Status / status:	Freigegeben / Released
Werkstückkanten workpiece edges	DIN EN ISO 13715	-0.8 -0.5 +0.4	ISO Methode E	Maßstab / scale 1:1	Benennung / part designation Schwingungsüberwa.Anlage Vibration monitoring system
Freimaßtol. / general tol. ISO 2768-mK:1989			Datum	Name	
Schutzvermerk nach ISO 16016 beachten Refer to protection notice ISO 16016	Bearbeiter	28.06.2021	WIE		
	Geprüft	12.07.2021	MUEL		
A Schweißkonstruktion / welded construction Schweißnähte nach DIN EN ISO 2553-A Schweißtoleranzen welding tolerances EN ISO 13920-AE		Flottweg Flottweg SE Industriestrasse 6-8 D-84137 Vilshburg	Abschaltwert 25mm/s	Zeichnungsnr. / drawing number F 2129.290.00/000/C	
			Blatt 1 von 1	sheet 1 from 1	

>>> Parts list <<<

Pos.	Component	Component description	Document
	1004.1480	cabling decanter	
..10	1713.230.00	1 PC junction box	D 1713.230.00/000/C
..36	1721.108.00	0,500 PC design.plate f.clamp	
..37	1721.188.00	0,100 PC design.plate f.clamp	
..40	1717.180.00	6 PC screwed cable gland	
..42	1717.181.00	1 PC screwed cable gland	
..43	1717.182.00	1 PC screwed cable gland	
..44	1717.183.00	1 PC screwed cable gland	
..45	1717.184.00	1 PC screwed cable gland	
..48	1702.193.00	2 PC PVC-cable core	
..52	1717.220.00	1 PC blind plug	
..54	1717.221.00	1 PC blind plug	
..55	1717.222.00	1 PC blind plug	
..56	1717.223.00	1 PC blind plug	
..57	1717.224.00	1 PC blind plug	
..121	1025.165.41	3 PC pipe clip	
..122	1025.248.00	4 PC pipe clip	
..123	1025.510.00	2 PC pipe clip	
..130	2612.964.10	1 PC pipe section	
..133	2632.045.00	1 PC pipe section	
..138	2612.872.00	1 PC pipe section	
..148	2632.220.00	1 PC pipe	F 2632.214.00/000/E
..160	1702.250.00	10 PC cable tie	
..164	1716.153.00	2.000 MM protection hose	
..165	1716.154.00	1.000 MM protection hose	
..170	2631.955.00	1 PC support	D 2631.955.00/000/A
..180	1721.506.00-01	1 PC label	
..202	1721.352.00	1 PC label	

>>> Parts list <<<

Pos.	Component	Component description		Document
	1004.2249		diff. and bowl speed monitoring	E 2129.248.20/000/A
..1	2329.138.10	1 PC	initiator	F 2329.138.10/000/A
..2	0010.013.00	4 PC	disc	
..3	0044.132.36	4 PC	hexagon screw	
..4	2329.152.00	1 PC	initiator carrier	E 2329.152.00/000/A
..5	1003.6819	1 PC	initiator	5006.5172/000/-
..6	2612.839.00	4 PC	spacer tube	
..7		1 PC	not applicable	
..8		1 PC	not applicable	
..9	0037.094.36	4 PC	head cap screw	
..10	1702.250.00	2 PC	cable tie	

8 7 6 5 4 3 2 1

F

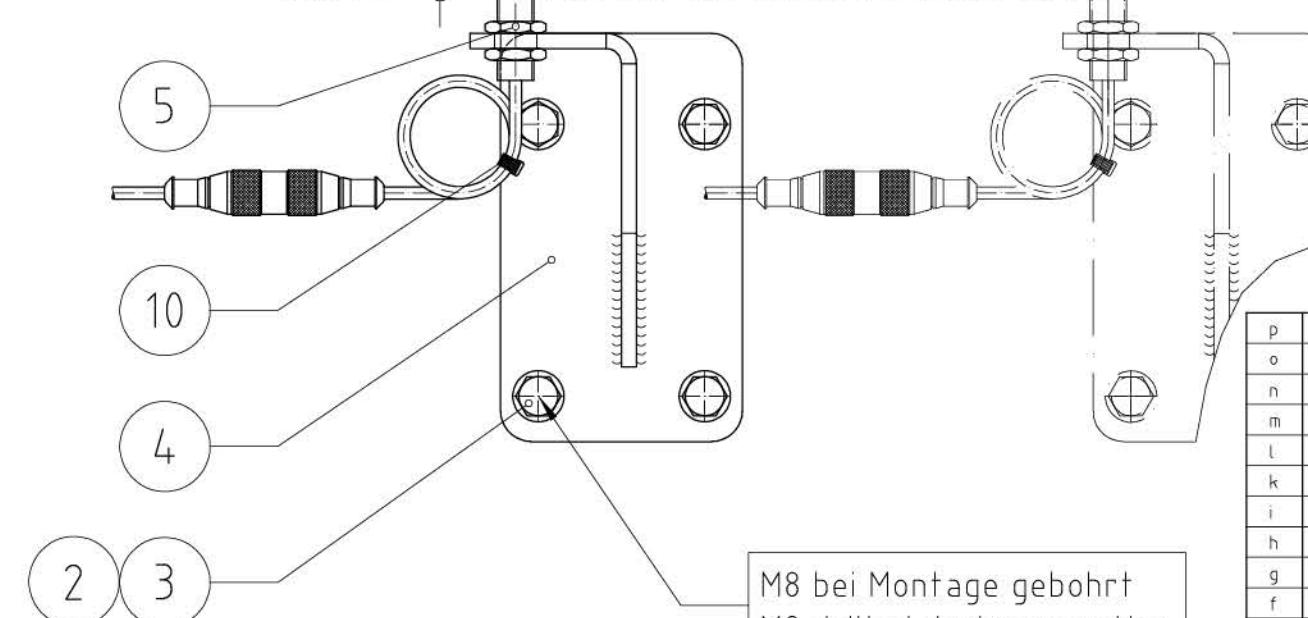
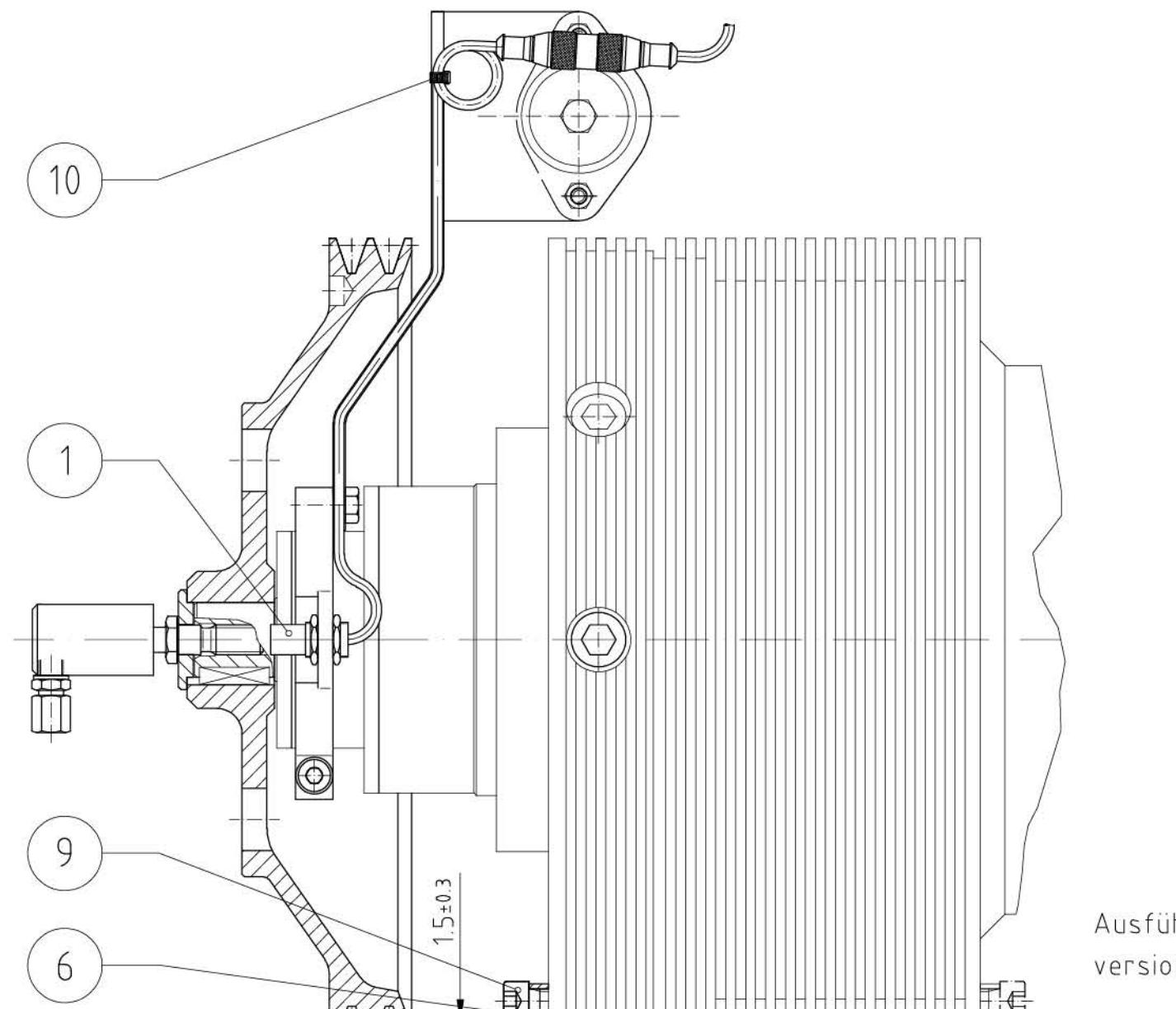
E

D

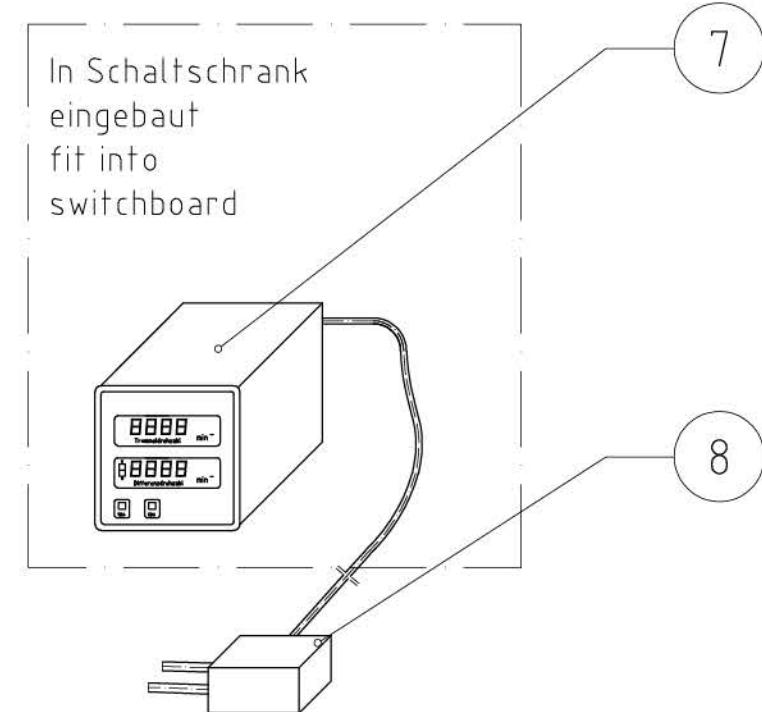
C

B

A



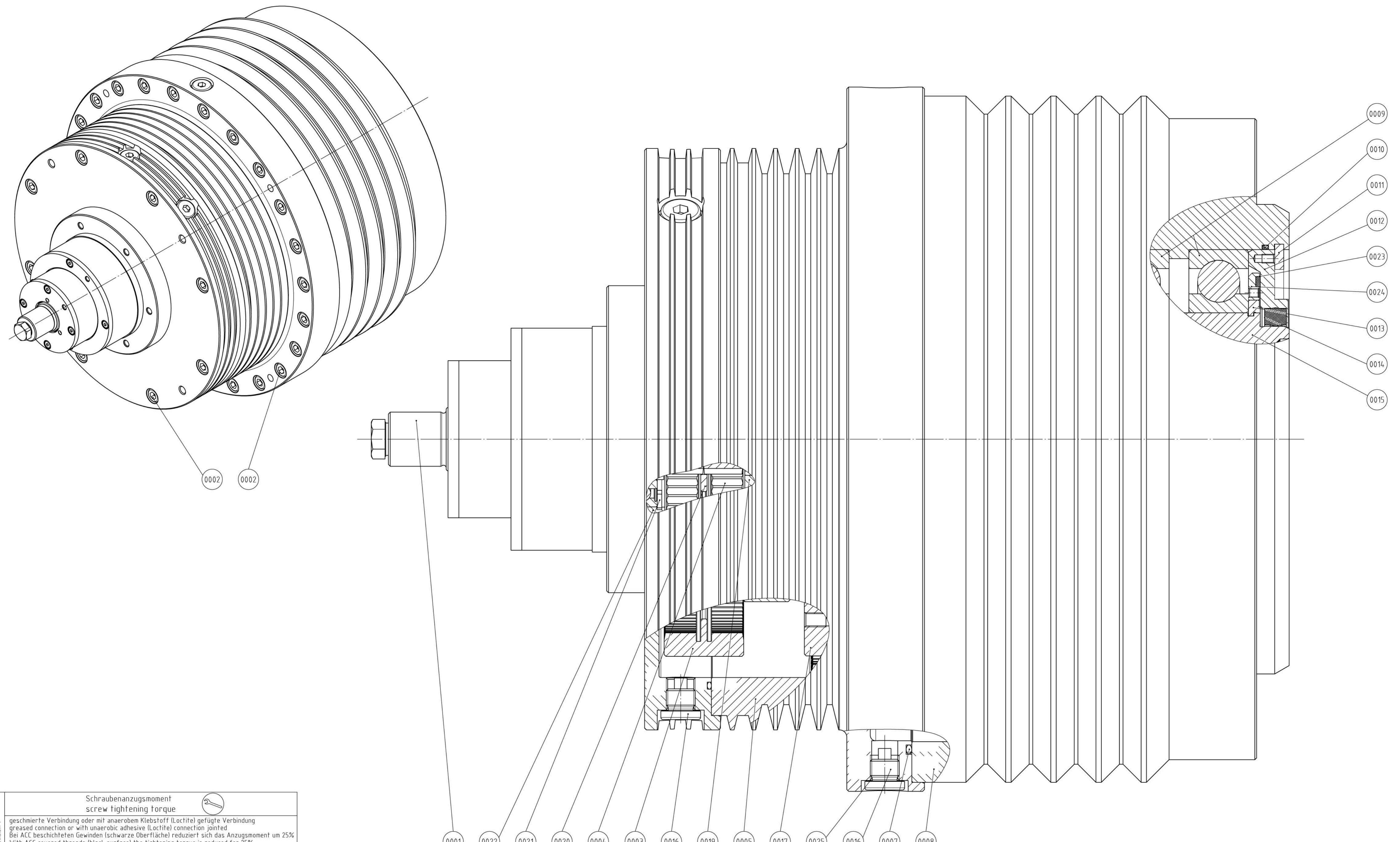
Ausführung mit Hydrolager
version with hydro-buffer



p					Schweißkonstruktion Schweißnähte nach EN 22553 Schweißtoleranzen EN ISO 13920-AE
o					
n					
m					
l					Werkstückkanten DIN 6784
k					$\begin{array}{c} -0.8 \\[-1ex] -0.5 \\[-1ex] +0.4 \end{array}$
i					Freimaßtoleranzen DIN ISO 2768-mK
h					
g					
f					
e					
d					
c					
b					
a	Z-3410	06.06.2007	Rd	Krä	Flottweg SE Industriestraße 6-8 D-84137 Vilshofen Schutzvermerk nach DIN ISO 16016 beachten
Ausgabe	Änderung	Datum	Bearb./Gepr. Name	Entst. aus:	Ersatz f.:
					Ersetzt d.:

>>> Parts list <<<

Pos.	Component	Component description	Document
	1031.581.40	gear	C 1031.581.40/000/B
...1	1031.045.51-99	1 PC driving shaft	E 1031.045.41-99/000/A
...2	0037.098.36	32 PC head cap screw	
...3	1031.511.00	1 PC internal geared wheel	E 1031.511.00/000/I
...4	1031.512.00	6 PC planetary wheel	F 1031.512.00/000/F
...5	1031.572.00	1 PC hollow wheel housing	C 1031.572.00/000/E
...7	1012.164.62	1 PC O-ring	
...8	1031.573.00	1 PC hollow wheel housing	C 1031.573.00/000/F
...9	1014.309.01	2 PC grooved ball bearing	
...10	1012.138.62	1 PC O-ring	
...11	1016.510.00	1 PC retaining ring	
...12	1031.555.00	1 PC cover	E 1031.555.00/000/D
...13	2632.322.00	1 PC retaining ring	F 2632.322.00/000/B
...14	1212.034.62	1 PC sealing ring	
...15	1031.581.23-99	1 PC planetary support	F 1031.581.23-99/000/B
...16	1031.483.00	6 PC locking screw	E 1031.483.00/000/C
...17	1031.581.22-99	1 PC planetary support	E 1031.581.22-99/000/A
...18	1002.195.00	10 L gear oil	
...19	1031.581.21-99	1 PC planetary support	E 1031.581.21-99/000/A
...20	1031.523.10	1 PC axial disc	F 1031.523.10/000/D
...21	1016.479.00	1 PC retaining ring	
...22	1031.581.24-99	1 PC housing cover	F 1031.581.24-99/000/B
...23	1019.300.00	549 MM guide ring	
...24	2632.323.00	1 PC ring	E 2632.323.00/000/A
...25	1004.535.62	2 PC EOLASTIC sealing	
...26	1005.1515	1 PC reference plate	5023.9186/000/-
...400	SK01.173.10	1 PC repair set for planetary support	C SK01.173.10/000/-
...500	1206.966.00	0,500 PC finishing complete	



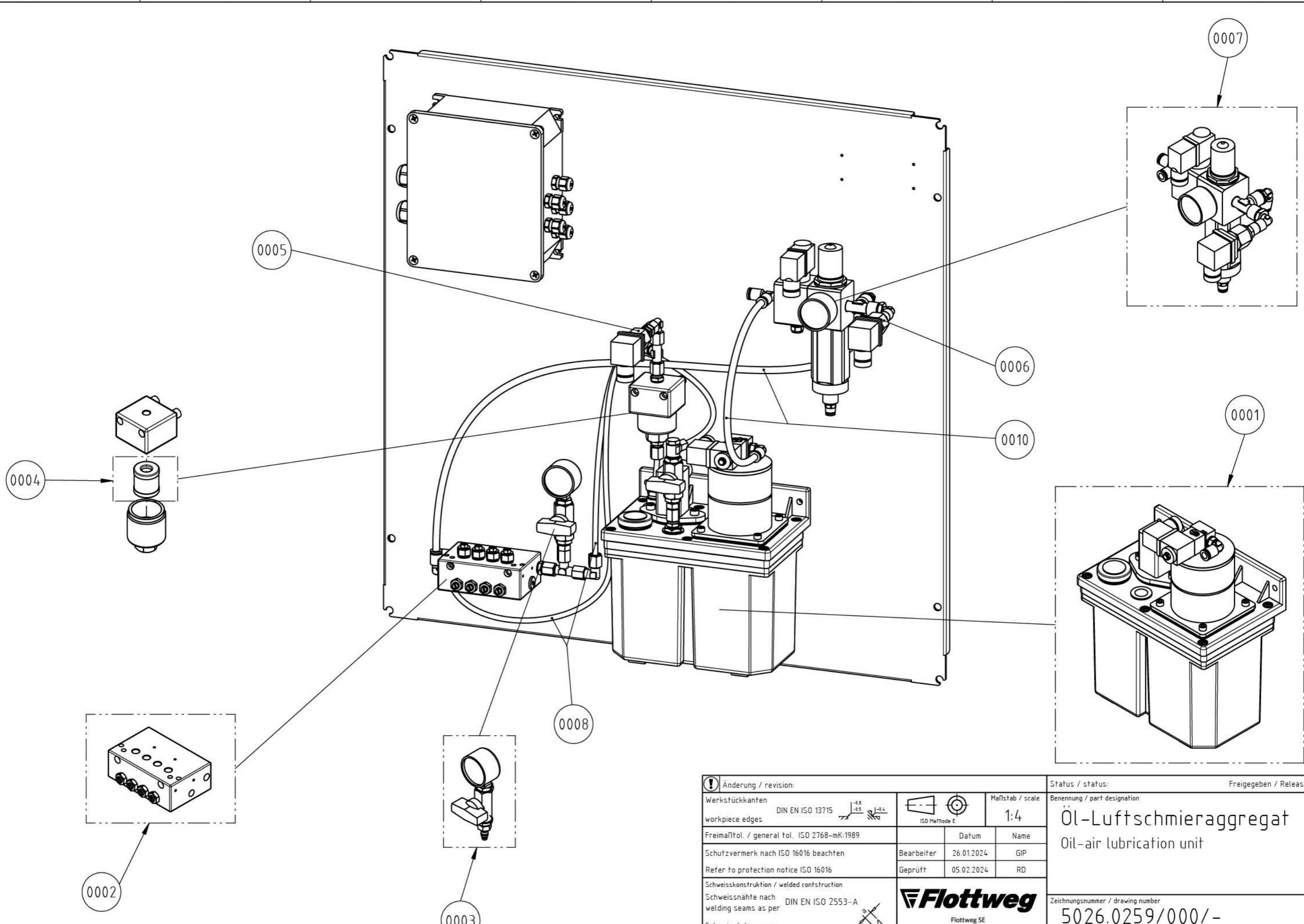
Schraubenanzugsmoment screw tightening torque									
geschmierte Verbindung oder mit anaerobem Klebstoff (Loctite) gefügte Verbindung greased connection or with anaerobic adhesive (Loctite) connection jointed Bei ACC beschichteten Gewinden (schwarze Oberfläche) reduziert sich das Anzugsmoment um 25% With ACC covered threads (black surface) the tightening torque is reduced for 25%									
Nm					ftlb				
1.4462 A4-70	8.8 A4-80	10.9	12.9	andere other	1.4462 A4-70	8.8 A4-80	10.9	12.9	andere other
M5	4	5	8	10	2.5	3.5	6	7	
M6	8	10	15	17	6	7	11	13	
M8	18	24	35	40	13	18	26	30	
M10	40	50	70	80	30	40	50	60	
M12	60	80	120	140	45	60	90	100	
M16	150	200	280	330	110	150	210	240	
M20	300	400	550	650	220	300	400	480	
M24	500	670	950	—	370	500	700	—	
M30	—	1350	—	—	—	1000	—	—	
M36	—	2000	—	—	—	1500	—	—	

siehe Zusatztext Stückliste
see additional text part list

Änderung / revision:		Ersatz für dwg:		Status / status:	
Werkstückkanten workpiece edges	DIN EN ISO 13715	ISO Metrische E	Maßstab / scale	Benennung / part designation	Freigegeben / Released
Frematol / general tol.: ISO 2768-mit.1989					
Schutzvermerk nach ISO 1616 beachten Refer to protection notice ISO 1616					
Schweißkonstruktion / welded construction Schweißnahte nach DIN EN ISO 2553-A Schweißtoleranzen welding tolerances EN ISO 13920-AE					
Flottweg Flottweg SE Industriestrasse 6-8 D-84137 Vilshofen					
C 1031.581.40/000/B					
Blatt 1 von 1					sheet 1 from 1

>>> Parts list <<<

Pos.	Component	Component description	Document
	1000.7300	oil-air lubrication unit	5026.0259/000/-
...1	1002.1223	1 PC Pump Group	
...2	1001.7665	1 PC Mixer	
...3	1001.7213	1 PC pressure gauge	
...4	1002.1222	1 PC oil filter	
...5	1001.9980	1 PC Pressure switch	
...6	1002.0186	1 PC Pressure switch	
...7	1001.9226	1 PC air maintenance unit	
...8	1005.1585	1 PC plastic hose	
...10	1005.1587	1 PC plastic hose	



Änderung / revision:				Status / status:	Freigegeben / Released
Werkstückkanten workpiece edges	DIN EN ISO 13715 	 ISO Methode E	Maßstab / scale 1:4	Benennung / part designation Öl-Luftschmieraggregat Oil-air lubrication unit	
Freimaßtol. / general tol. ISO 2768-mK:1989		Datum	Name		
Schutzvermerk nach ISO 16016 beachten Refer to protection notice ISO 16016	Bearbeiter Geprüft	26.01.2024 05.02.2024	GIP RD		
Schweisskonstruktion / welded construction Schweißnähte nach welding seams as per DIN EN ISO 2553-A Schweißtoleranzen welding tolerances EN ISO 13920-AE 	Flottweg Flottweg SE Industriestrasse 6-8 D-84137 Vilsbiburg		Zeichnungsnr. / drawing number 5026.0259/000/-	Blatt 1 von 1	sheet 1 from 1

<<< List of recommended spare parts >>>

Pos.	Component	Component description
200041705		
.1	1001.5898	1 PC rotor complete
.2	1012.008.62-02	3 PC O-ring
.5	1019.300.00-01	4.000 MM guide ring
.8	1012.669.60	4 PC O-ring
.9	1012.005.60	4 PC O-ring
.12	1014.274.00	1 PC cylindrical roller bearing
.17	1012.666.62-02	1 PC O-ring
.19	1012.658.62-02	2 PC O-ring
.23	2342.122.00	2 PC scraper strip
.26	2311.952.00-01	4 PC scraper strip
.28	1012.665.62-02	2 PC O-ring
.30	1019.301.00-01	3.000 MM guide ring
.34	2919.054.03	4 PC solids scraper
.41	1014.447.00	1 PC grooved ball bearing
.44	1212.221.60	16 PC sealing
.47	1012.290.62-02	1 PC O-ring
.48	1012.516.62-02	4 PC O-ring
.55	1012.110.60	1 PC O-ring
.91	1014.005.01	2 PC grooved ball bearing
.105	1012.271.62-02	2 PC O-ring
.114	2911.297.20	6 PC sealing ring
.115	1012.541.62	6 PC O-ring
.116	1012.206.68-02	6 PC O-ring
.120	1012.163.62-02	1 PC O-ring
.122	1014.296.00	3 PC angular contact bearing
.123	1012.123.62-02	1 PC O-ring
.125	1012.147.62-05	2 PC O-ring
.128	1012.138.62-02	2 PC O-ring
.130	1012.155.62-02	1 PC O-ring
.132	1012.154.62-02	2 PC O-ring
.137	1014.448.00	1 PC grooved ball bearing
.147	1012.302.62-02	2 PC O-ring
.151	1012.520.62-04	1 PC O-ring
.152	1012.095.60	2 PC O-ring
.162	1012.726.62	2 PC O-ring
.4	1001.5881	1 PC housing complete
.4	1001.3921	8.400 MM gasket cord
.9	1001.5905	1 PC gear complete
.5	1002.195.00	1 L gear oil
.8	1147.012.10	1 PC rotary grease connection
.11	1012.186.60	1 PC O-ring

<<< List of recommended spare parts >>>

Pos.	Component	Component description	
200041705			
.16	1031.581.40	1 PC	gear
...1	1031.045.51-99	1 PC	driving shaft
...18	1002.195.00	10 L	gear oil
.30	2303.974.00	1 PC	bowl belt drive
..2	0096.068.00	5 PC	V-belts
.31	2302.749.00	1 PC	conveyer belt drive
..3	0096.022.00	2 PC	V-belts
.46	1002.195.00-02	2 PC	gear oil
.47	1002.195.00-03	1 PC	gear oil