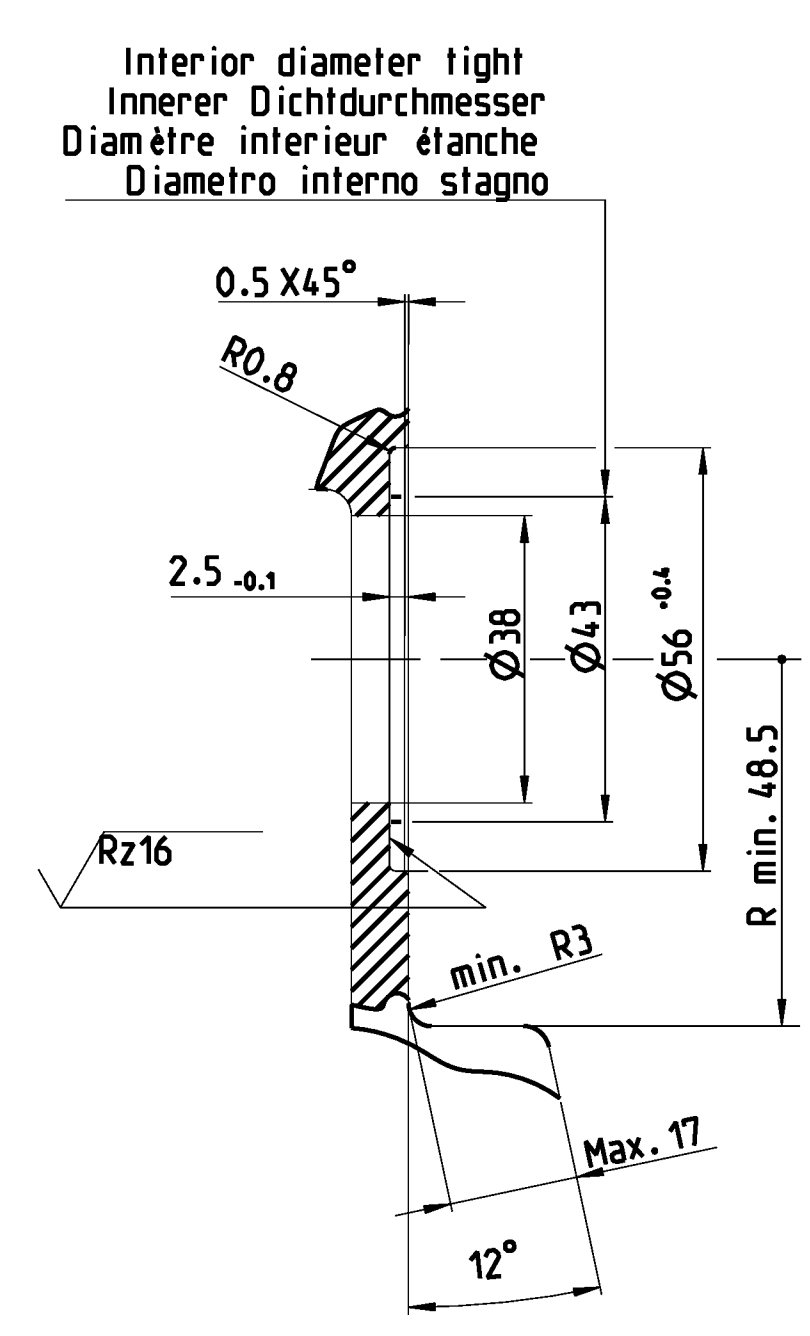
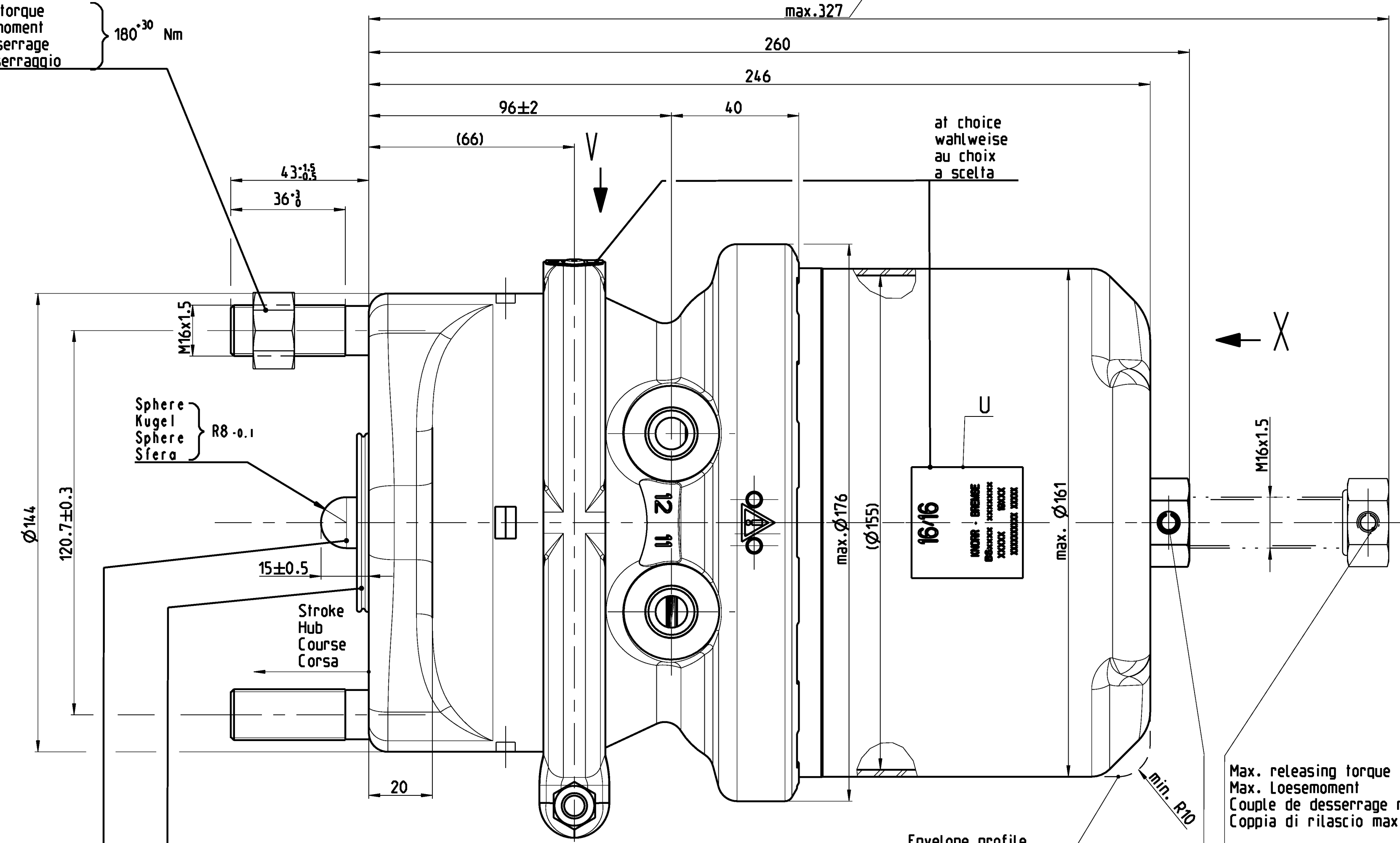


Tolerances/Tolérance/Tollerances/Tolleranze					
Nominal dimensions in mm					
Cotes nominales en mm					
Dimensioni nominali in mm					
<6	>6 - <30	>30 - <80	>80 - <120	>120 - <315	>315
±1	±1.5	±2	±2.5	±3	±4



Installation dimension of brake caliper
Anschlüssegeometrie des Bremsstifts
Bride de fixation de l'étrier de frein
Geometria della flangia sulla staffa

Tightening torque
Anziehdrehmoment
Couple de serrage
Coppia di serraggio



Sealing pressure tight against secondary chamber
Abdichtung: druckdicht zum Sekundärraum
Étanchéité: étanche à la chambre secondaire
Tenuta ermetica camera secondaria } 0.4 bar

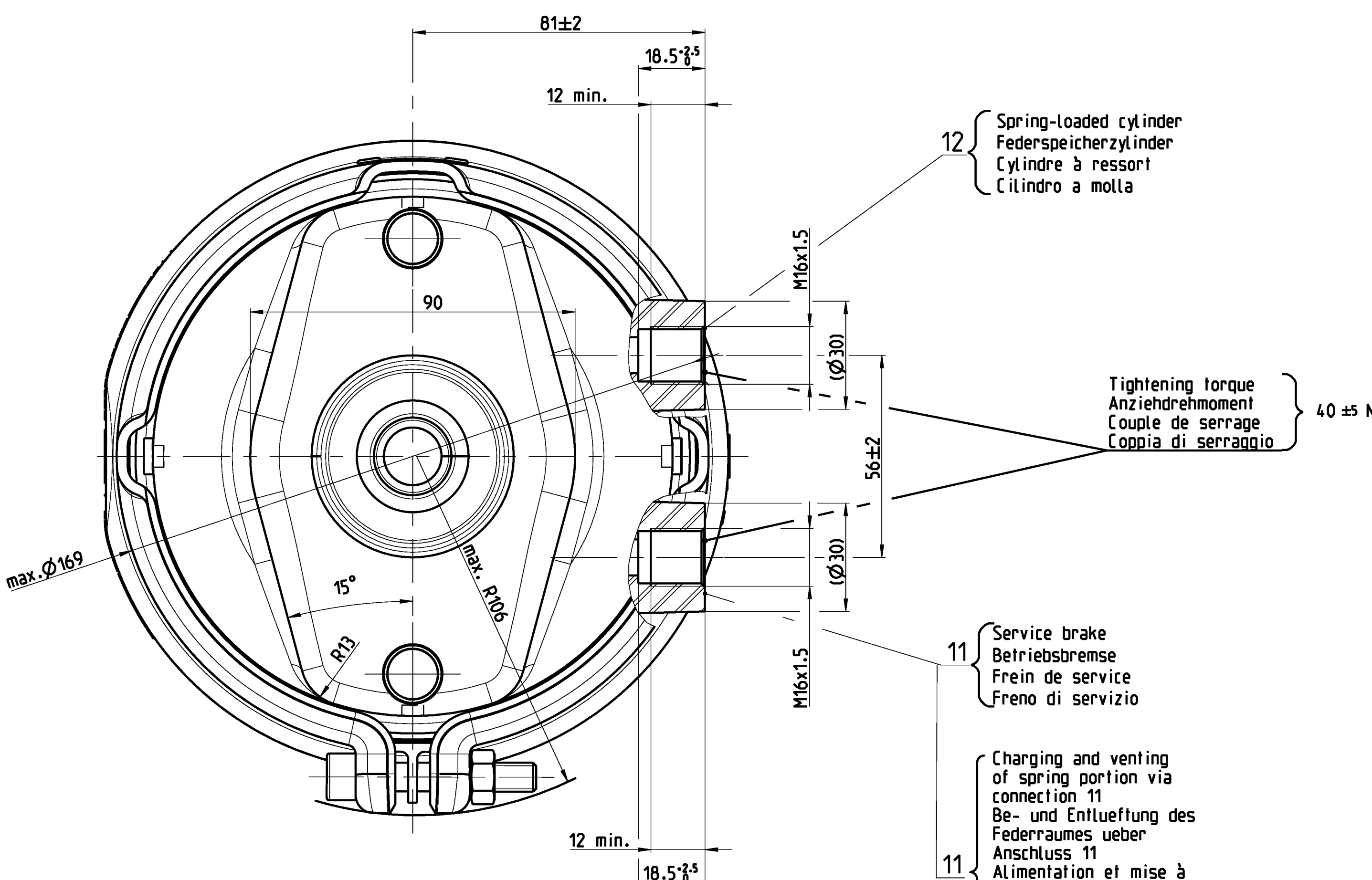
Max. pivoting angle of piston rod in all directions
Schwenkbereich der Kolbenstange allseitig max.
Angle de pivotement max. de la tige de piston de tous côtés
Angolo di rotazione dello stelo stantuffo in tutti i direzioni } 4°

Max. releasing torque
Max. Loesemoment
Couple de desserrage max.
Coppia di rilascio max. } 35Nm

Mechanical releasing device: Spanner width
Mechanische Loesevorrichtung: SW
Dispositif de desserrage mécanique: Cote sur plats
Dispositivo di rilascio meccanico: Chiave } 24

Tightening torque in operating position
Anziehdrehmoment in Betriebsstellung
Couple de serrage en position de service
Coppia di serraggio nella posizione di servizio } 20 - 70 Nm

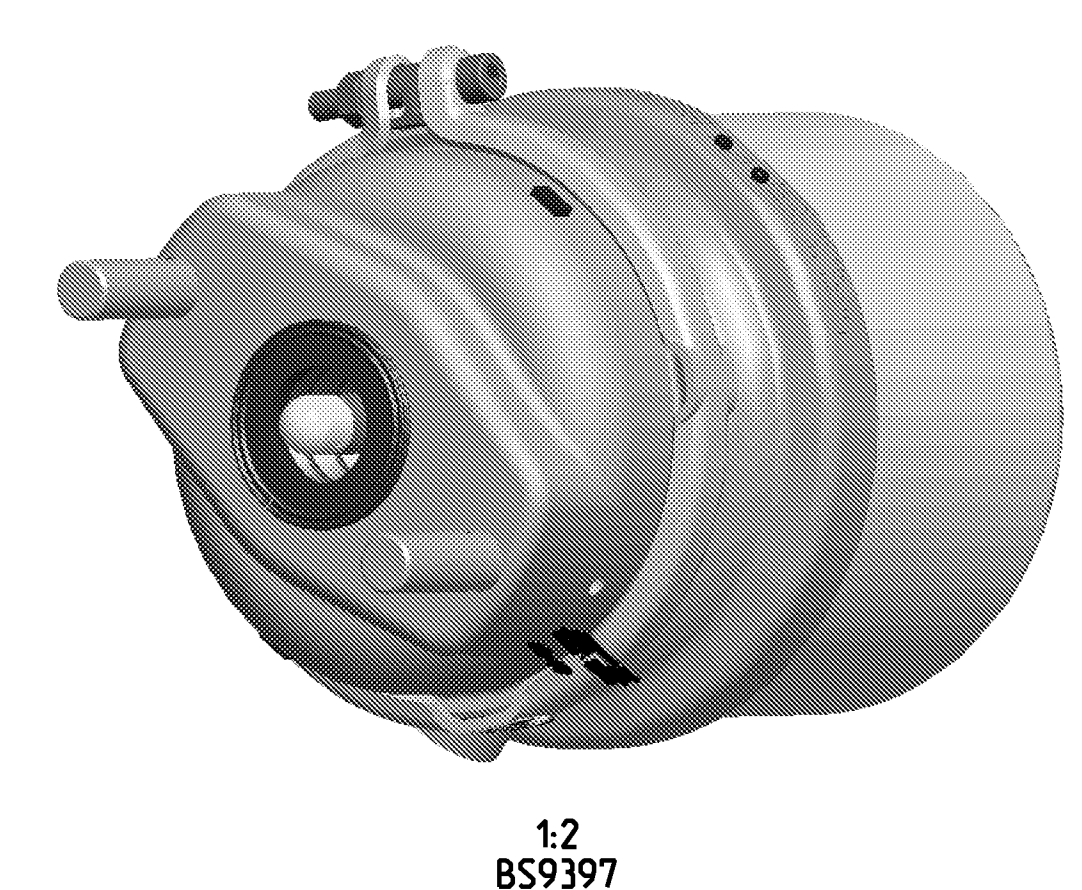
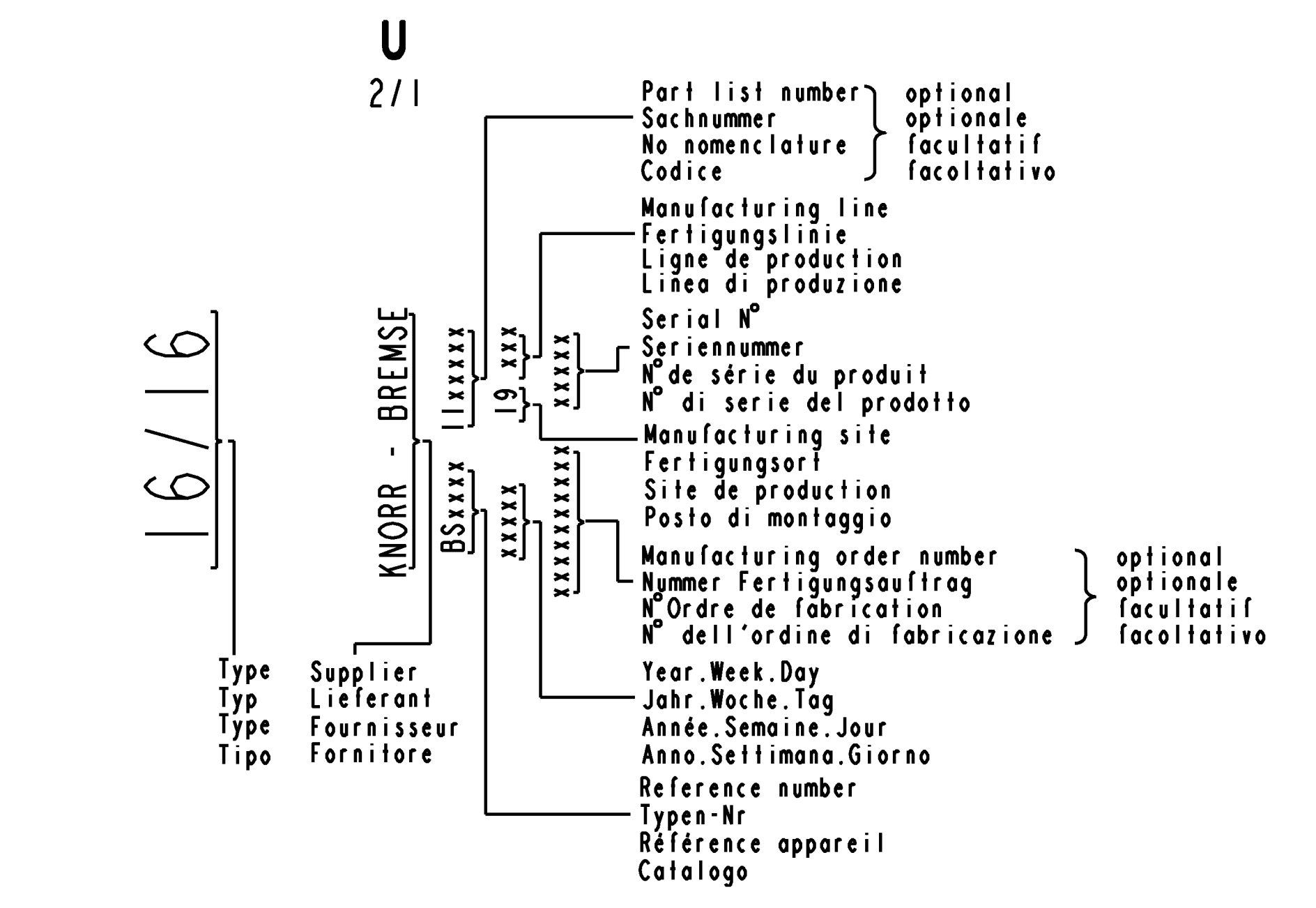
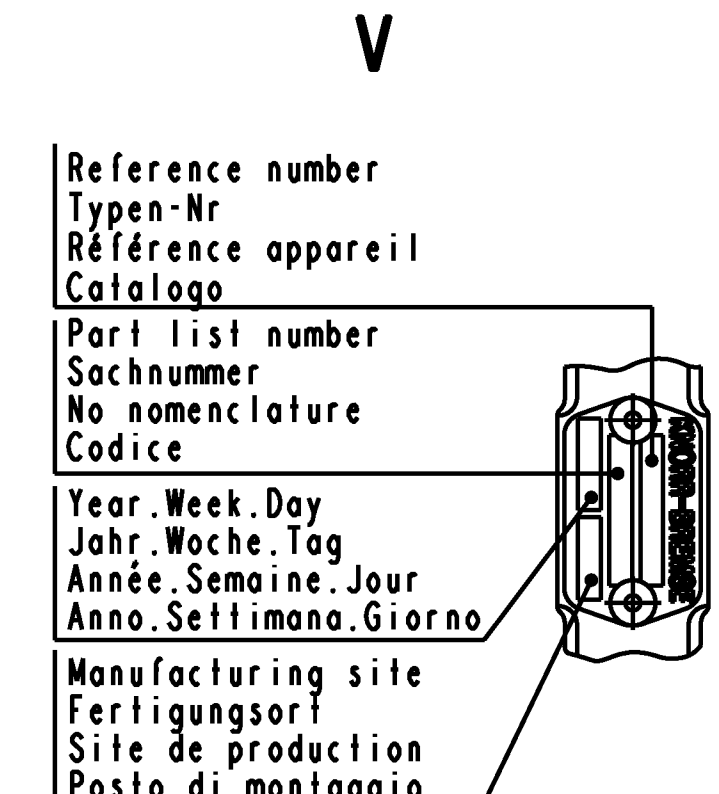
- General presentation, exact orientation of the components, see below.
- Allgemeine Darstellung, fuer genaue Teilorientierung; siehe Ansicht unten.
- Présentation générale, orientation exacte des pièces, voir vue en bas.
- Presentazione generale. Per l'orientazione corretta dei pezzi, vedere il disegno sotto.



12 Spring-loaded cylinder
Federspeicherzylinder
Cilindro a molla

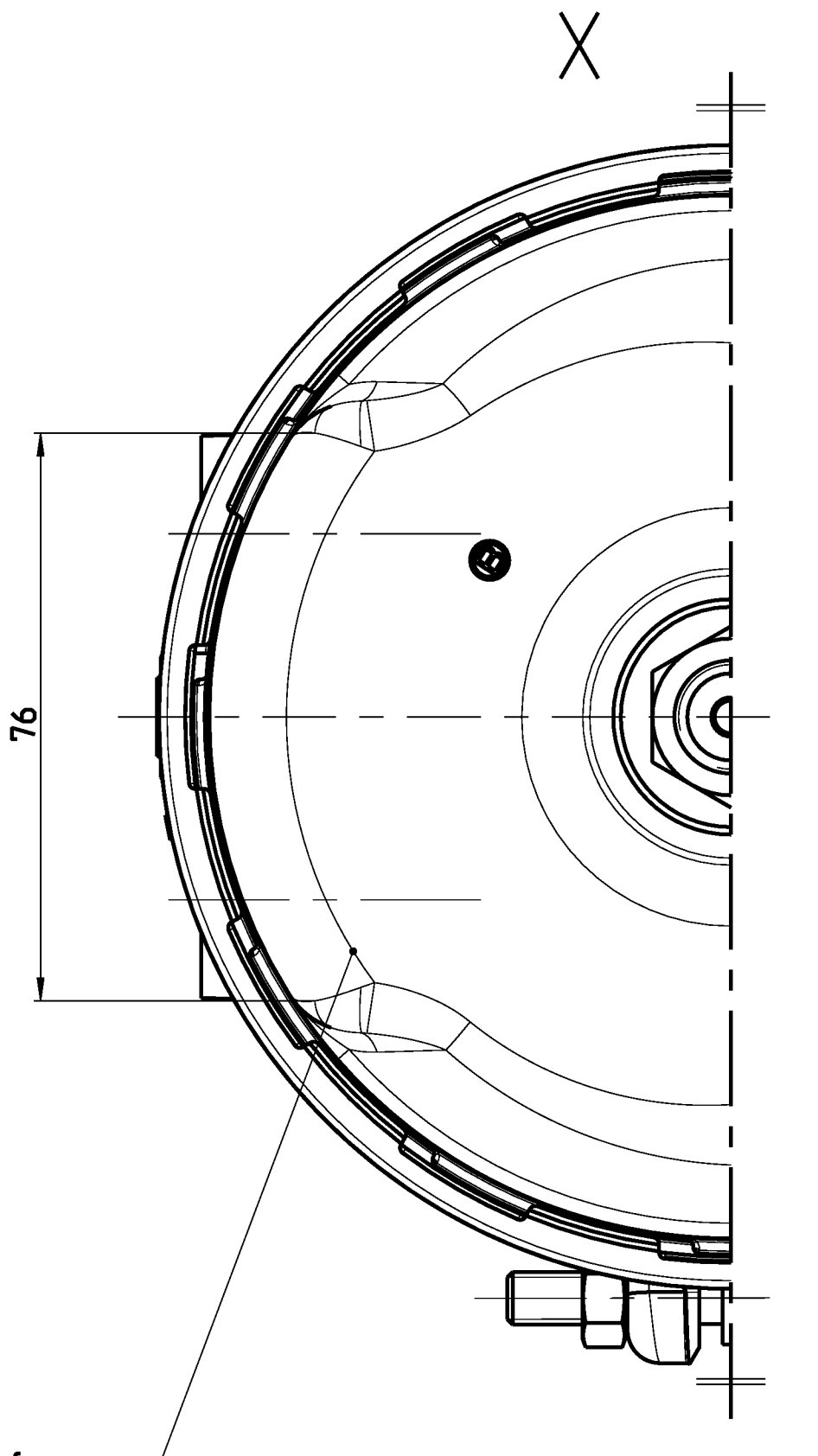
11 Service brake
Betriebsbremse
Frein de service
Freno di servizio

Charging and venting of spring portion via connection 11
Be- und Entlüftung des Federraumes ueber Anschluss 11
Alimentation et mise à l'atmosphère de la chambre à ressort par le raccord 11
Alimentazione ed evacuazione della attraverso attacco 11



At choice, with or without form
Wahlweise, mit oder ohne Form
Au choix, avec ou sans forme
Secondo scelta, con o senza forma

The position of the nose relative to the circumference is unspecified
Position des Vorsprungs am Umfang beliebig
Posizion du bossage indifferente par rapport à la circonférence
Qualunque posizione del naso possibile sulla circonferenza



Force of return spring at stroke 20 mm
Kraftabgabe der Ruckhofeder bei Hub 20 mm
Force du ressort de rappel à une course de 20 mm
Forza della molla di ritorno a una corsa di 20 mm } F = 200 N

Diagram of service brake
Diagramm der Betriebsbremse
Diagramme du frein de service
Diagramma del freno di servizio } Type 16

Required release pressure
Erforderlicher Loesedruck
Pression de desserrage nécessaire
Pressione di rilascio necessaria } 5.2 ± 0.3 bar

Diagram of spring loaded cylinder
Diagramm des Federspeichers
Diagramme du cylindre à ressort
Diagramma del cilindro a molla } Type 16

Optional uses specifications:
Max. operating pressure } 10 bar
Max. Betriebsdruck
Pression de service max. 11
Pressione massima

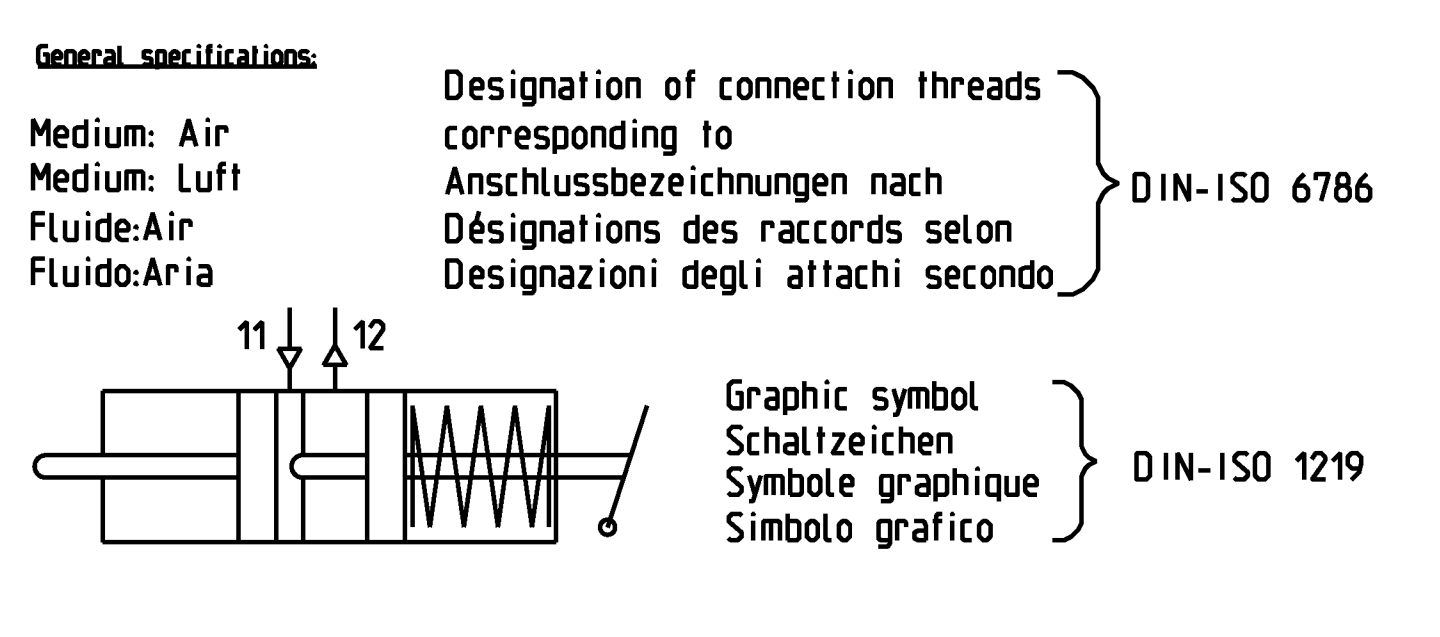
Max. operating pressure } 8.5 bar
Max. Betriebsdruck
Pression de service max. 12
Pressione massima

Permissible leakage } V_n = 10 cm³/min
Zulaessige Undichtheit
Fuite admissible
Fuga d'aria ammissibile

Critical uses specifications without part failure:
Max. pressure } 12 bar
Hochsdruck
Pression max.
Pressione massima

Max. pressure } 10 bar
Hochsdruck
Pression max.
Pressione massima

Temperature range } -40°C to +80°C
Therm. Anwendungsbereich
Plage de température
Campo termico di applicazione



General specifications:
Medium: Air
Medium: Luft
Fluide: Air
Fluido: Aria

Designation of connection threads corresponding to
Anschlussbezeichnungen nach
Designations des raccords selon
Designazioni degli attacchi secondo } DIN-ISO 6786

Graphic symbol
Schaltzeichen
Symbole graphique
Simbolo grafico } DIN-ISO 1219

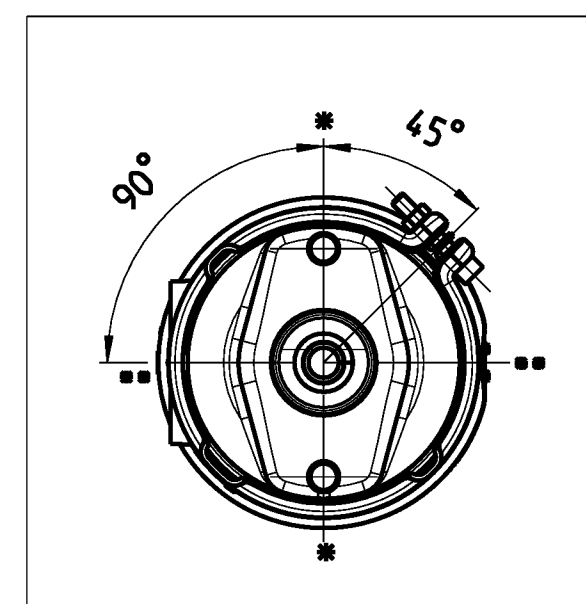
Specifications for service brake actuation in parking position:
Minimum pressure } 2 bar
Minimum Druck
Pression minimale
Pressione minima

Pressure rising min.
Druckgradient min.
Montée en pression min.
Aumento della pressione min. } 11 } 3 bar/s

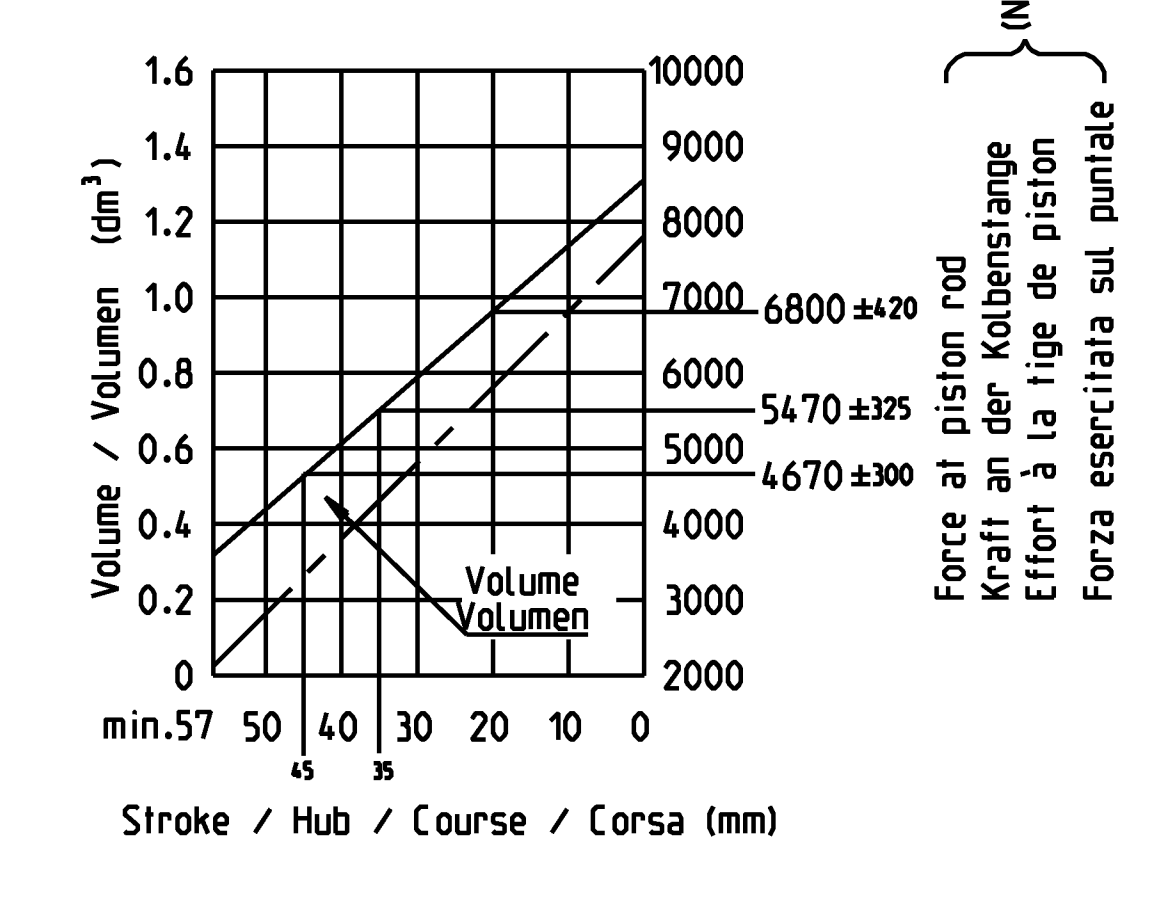
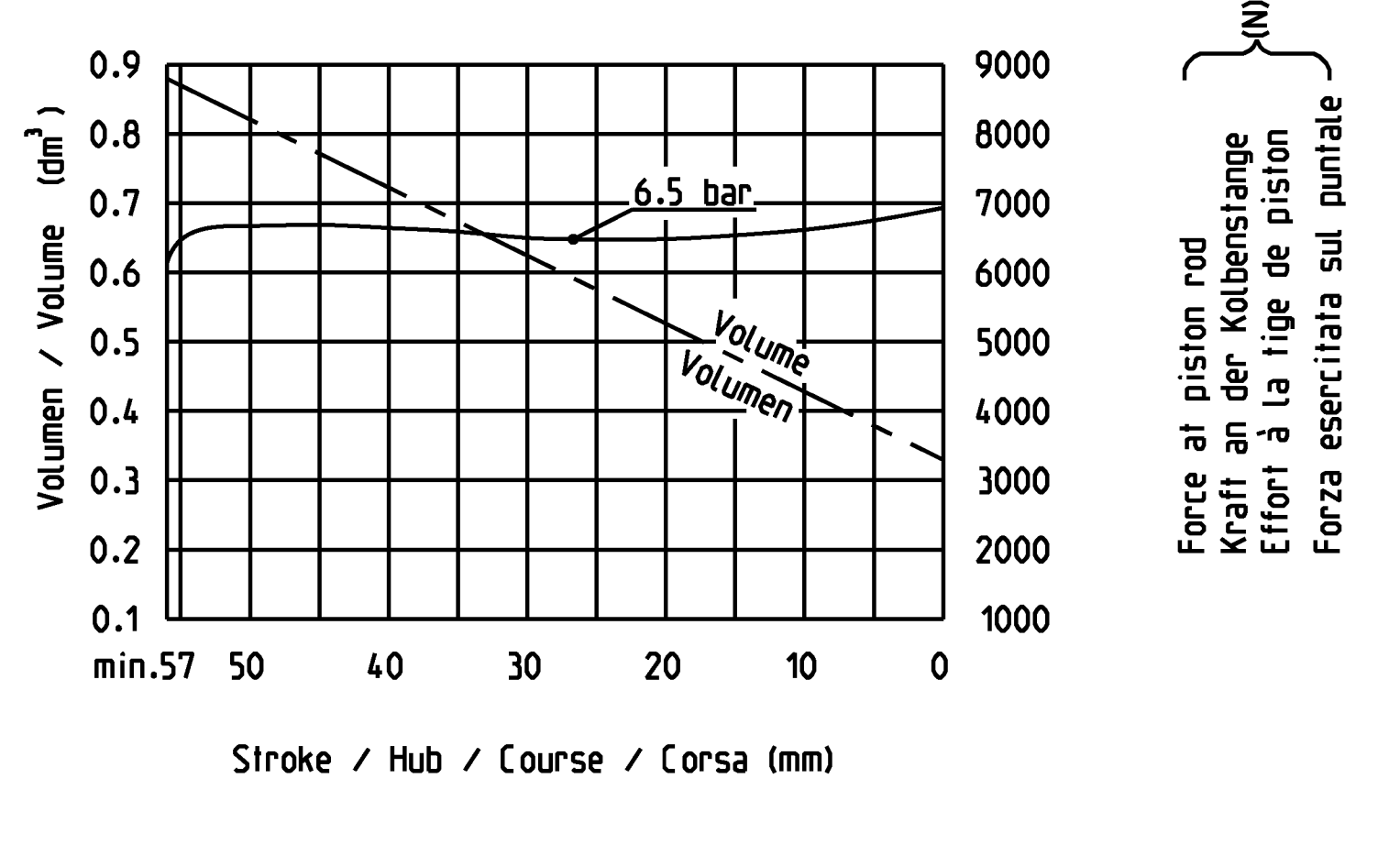
Warning / Nachricht / Avertissement / Avvertimento

This brake actuator can only be used on applications for which it has been formally validated by Knorr-Bremse
Dieser Bremszylinder darf nur für Applikationen angewendet werden, für die er von Knorr-Bremse freigegeben worden ist
Cet actionneur de frein ne doit être utilisé que sur les applications pour lesquelles il a été formellement homologué par Knorr-Bremse
Questo cilindro a molla deve essere utilizzato solo per applicazioni benestanti formalmente dalla Knorr-Bremse

- Exhaust holes must be directed downwards and upwards at ±30° regarding to the vertical
- Entlüftung muss im eingebauten Zustand nach unten und nach oben zeigen
- Les orifices d'échappement doivent être dirigés vers le bas et le haut à ±30° par rapport à la verticale
- Installato i fori di scarico dovranno essere rivolti verso il basso e il alto con ±30° rispetto alla verticale



- Breather holes opened
- Atmungsbohrungen geöffnet
- Trous de respiration ouverts
- Fori di respirazione aperti } Ø6
- Plug
- Pfropfen
- Bouchon
- Tappo



BS9397 - 1131227		6.9
KB-Ref. number KB-Bestell-Nr. KB-N° de ref. KB Codice		Weight Gewicht Masse Peso (Kg)

Rev.	Revision Reference	Date	Desc.
01	150130-30	27.06.2018	1st

ISO 12000	Surface Characteristics	ISO 12000	Surface Treatment	Length Units	mm	Scale	1:1
ISO 12000	General Tolerances	ISO 12000	General Tolerances	Length Units	mm	Scale	1:1
ISO 12000	Form Tolerances	ISO 12000	Form Tolerances	Length Units	mm	Scale	1:1
ISO 12000	Positioning Tolerances	ISO 12000	Positioning Tolerances	Length Units	mm	Scale	1:1

Part Name	BS9397	Part No.	1131227
Manufacturer	KNORR-BREMSE	Part No.	1131227
Revision	01	Part No.	1131227
Drawn	C.63455	Part No.	1131227
Checked		Part No.	1131227
Approved		Part No.	1131227