BK....

Spring Brakes (Disc), diaphragm/piston NG3 EVO

Function

This range of **Spring Brakes** is used on axles fitted with air disc brakes to provide the service and parking brake functions combines years of experience with new crimped service portion together.

The internal Short wind-off mechanism allows the parking brake force to be removed if air pressure is no longer present.

The Spring Brakes have a mounting seal integrated in the non-pressure housing which prevents the entry of dirt or water into the caliper.

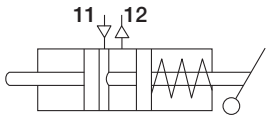
See PD-413-000, Document No. Y115384 for the full range of Spring Brakes for trailers.



Technical Features

Maximum operating pressure:	Port 11; 10.2 bar Port 12; 8.5 bar
Release pressure:	See chart
Operating temperature range:	-40 °C to +80 °C
Sealing of the non-pressure housing:	Rubber boot
Push rod stroke:	57/57, 64/40 or 64/64 mm
Port threads:	M16x1.5, M22x1.5,M22x1.5 N10164-NG12, 3/8-NPTF-1, VOSS 232
Release device:	Mechanical short release system
Weight:	See table

Standard Symbol as DIN ISO 1219



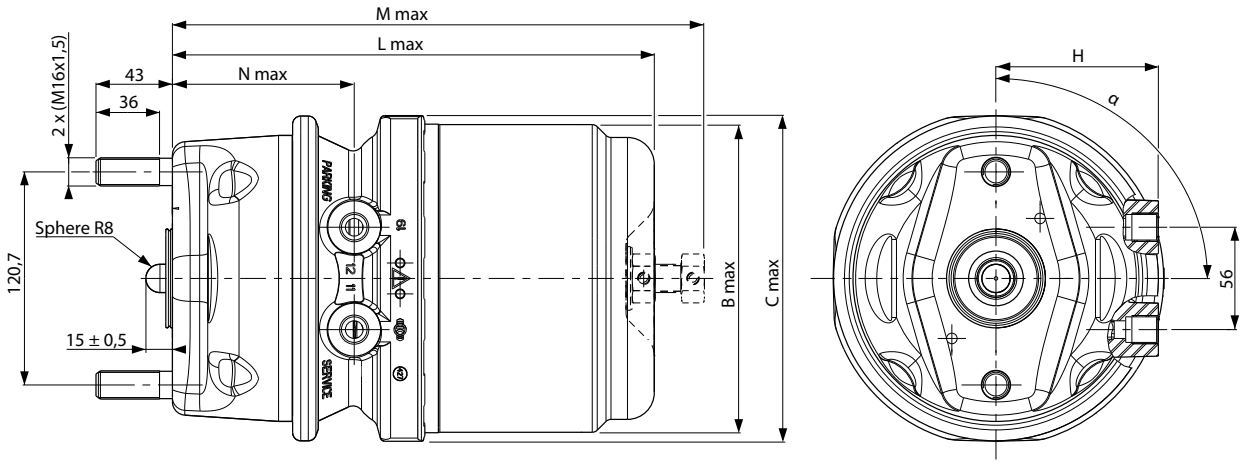
Range Overview

Part No.	Type No.	Size		TÜV Inspection Report	Weight approx. [kg]	Replaced NG3 Part No.	Replaced NG3 Type No.
		Service Brake [Type]	Parking Brake [Type]				
K158648N00	BK9607	30	14		7,0	-	-
K221874N00	BK9086	10	16		6,1	K007629N00	BS9086
In preparation		12				K007038N00	BS9177
K231415N00	BK9296	14			6,2	K007642	BS9296
In preparation		16				II31227	BS9397
K242068N00	BK8395	18			6,9	K012314	BS8395
In preparation		16	24			II38467F	BS9338
In preparation		18				K011236	BS8478
K251447N00	BK9476	20			8,0	II38408F	BS9476
K242216N00	BK8485	22			8,0	K038830N00	BS8485
In preparation						K011106	BS8477
K158628N00	BK9520	24			8,0	II34388	BS9520
In preparation		20	24 HFL1			K007669N00	BS8414
K241772N00	BK9535	24			8,2	II37468	BS9535
In preparation		20	24 HFL3 S			K007677	BS8426
K235611N00	BK9502	24			8,6	K004052N00	BS9502
In preparation		24	30			K153999N00	BS6526

Other sizes are available. Product range is growing up.

Spring Brakes (Disc), diaphragm/piston NG3 EVO

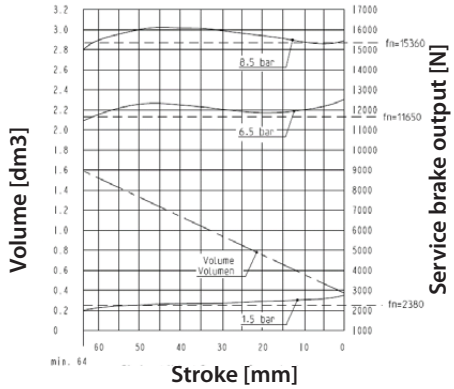
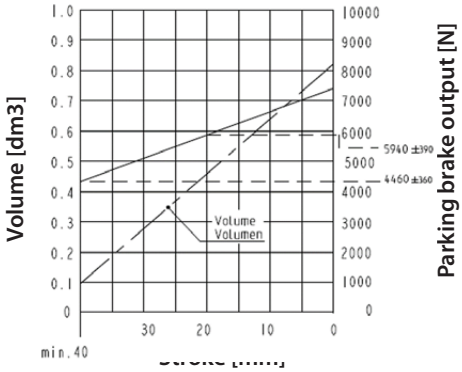
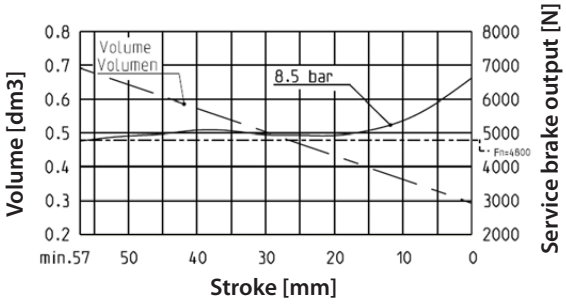
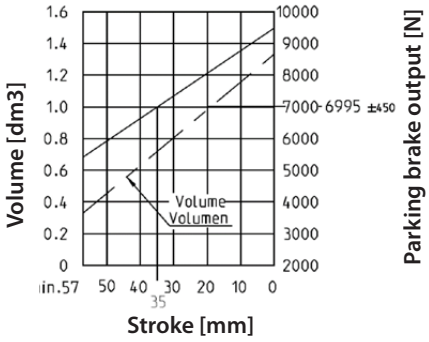
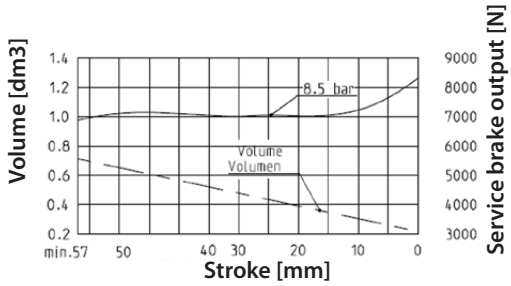
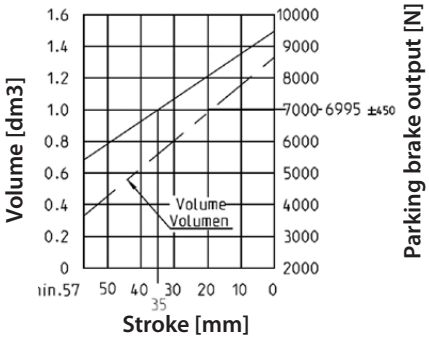
Dimensions



Part No.	Type No.	B max [mm]	C max [mm]	H [mm]	L max [mm]	M max [mm]	N max [mm]	α [°]	Air Port
K158648N00	BK9607	Ø161	Ø176	103	204	237	109	270	M22x1.5
K221874N00	BK9086			81	243	279	95	305	M22x1.5 N10164-NG12
K231415N00	BK9296				248	284		90	
K242068N00	BK8395								3/8-NPTF-1
K251447N00	BK9476	Ø176	Ø191	90	257	288	101	360	M22x1.5 N10164-NG12
K242216N00	BK8485				243	274	94		M22x1.5
K158628N00	BK9520				245	276	96		M22x1.5 N10164-NG12
K241772N00	BK9535				277	303	103		
K235611N00	BK9502							30	VOSS 232

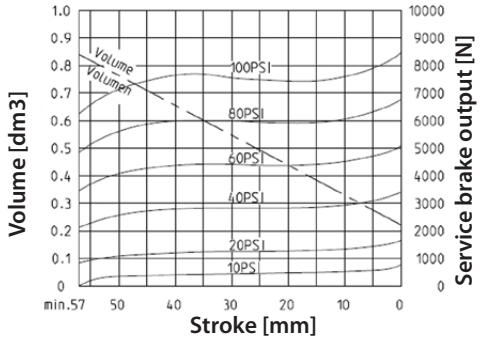
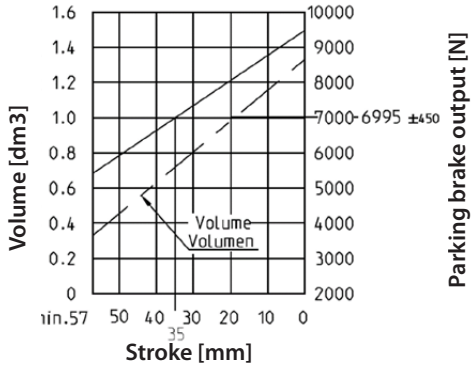
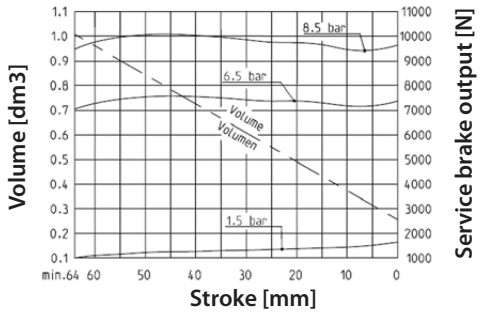
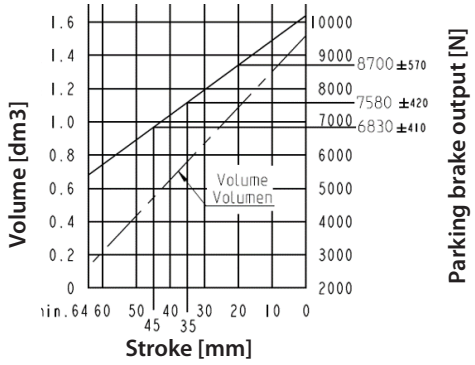
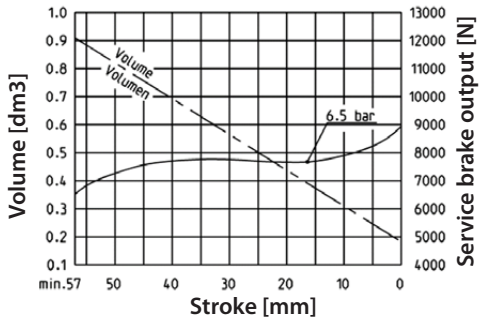
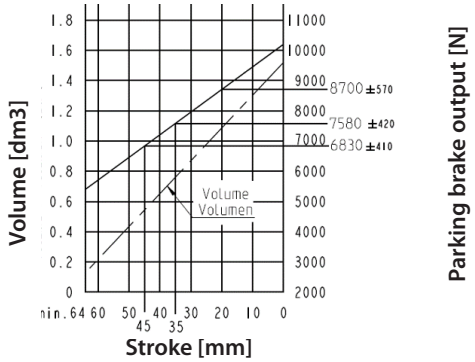
Spring Brakes (Disc), diaphragm/piston
NG3 EVO

Performance Charts

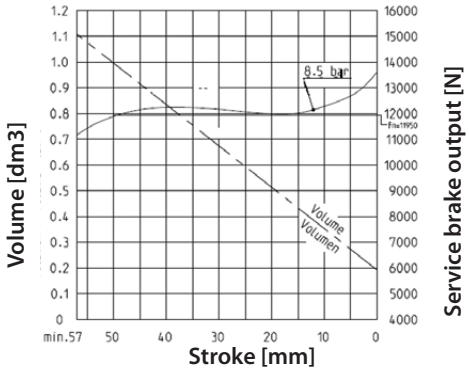
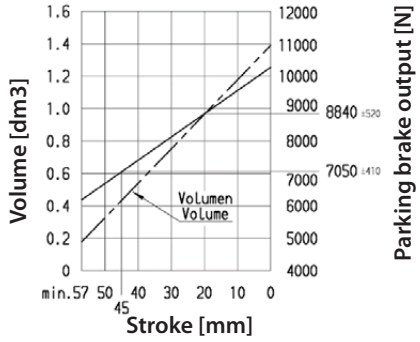
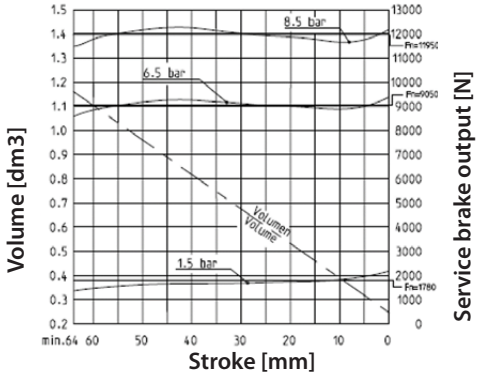
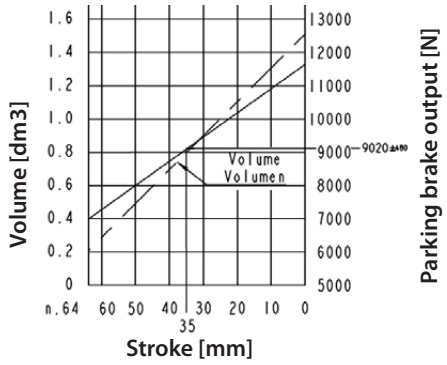
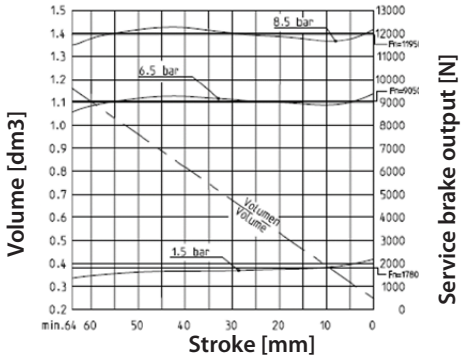
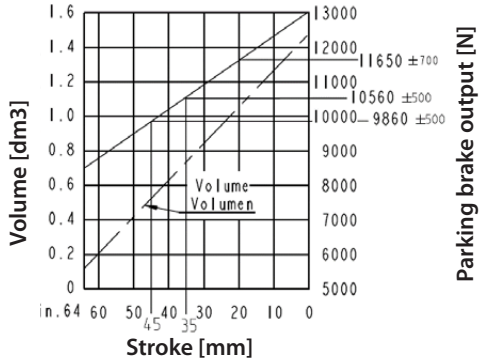
Service Brake	Parking Brake
BK9607 **Return spring force at 0 mm stroke: F= 220N** 	**Required release pressure @ 5 mm stroke: 6 bar max** 
BK9086 **Return spring force at 0 mm stroke: F= 220N** 	**Required release pressure @ 5 mm stroke: 5.5±0.3 bar** 
BK9296 **Return spring force at 0 mm stroke: F= 150N** 	**Required release pressure @ 5 mm stroke: 5.5±0.3 bar** 

Spring Brakes (Disc), diaphragm/piston NG3 EVO

Performance Charts (continued)

Service Brake	Parking Brake
BK8395 **Return spring force at 0 mm stroke: F= 150N**	**Required release pressure @ 5 mm stroke: 5.5±0.3 bar**
	
BK9476 **Return spring force at 0 mm stroke: F= 220N**	**Required release pressure @ 5 mm stroke: 5.1±0.3 bar**
	
BK8485 **Return spring force at 0 mm stroke: F= 220N**	**Required release pressure @ 5 mm stroke: 5.1±0.3 bar**
	

Performance Charts (continued)

Service Brake	Parking Brake
BK9520 **Return spring force at 0 mm stroke: F= 150N** 	**Required release pressure @ 5 mm stroke: 5.1±0.3 bar** 
BK9535 **Return spring force at 0 mm stroke: F= 220N** 	**Required release pressure @ 5 mm stroke: 5.5±0.3 bar** 
BK9502 **Return spring force at 0 mm stroke: F= 220N** 	**Required release pressure @ 5 mm stroke: 6.1±0.3 bar** 

Spring Brakes (Disc), diaphragm/piston NG3 EVO

Installation and Mounting instructions

Detailed information concerning the mounting of brake actuators on disc brakes can be found in the service manual for Pneumatic Disc Brake SN6 - SN7 - SK7 Y006471.

Special Note:

If the actuator is supplied with the drain holes plugged, remove lowest plug (as viewed when the actuator is installed).

Winding-off the Power Spring

In case of failure in the air system, to release the actuator's spring force:

- Ensure wheels are chocked
- Rotate the nut (24 mm AF - across flats) at the rear of the actuator in a counter clockwise direction. Max. torque 35 Nm.



Attention:

Use only the correct sized ring or open-ended spanner!

The parking brake portion of the Spring Brake contains a very high spring load and it is strongly recommended that you do not attempt any disassembly of this portion. This should also be taken into consideration when disposing of spring brakes of any type.

Revision Details

Rev. 000	September 2022	New Document

KNORR-BREMSE

Knorr-Bremse Systems for Commercial Vehicles
Moosacher Strasse 80 | 80809 Munich | Germany
Tel: +49 89 3547-0
Fax: +49 89 3547-2767
truckservices.knorr-bremse.com

Copyright © Knorr-Bremse AG
All rights reserved, including industrial property rights applications. Knorr-Bremse AG retains any power of disposal, such as for copying and transferring.

Disclaimer
The information contained herein is intended for the exclusive use of trained persons within the commercial vehicle industry, and must not be passed on to any third party. All recommendations regarding products and their servicing or usage are with reference to Knorr-Bremse products and should not be considered applicable to products from other manufacturers. This information does not purport to be all-inclusive and no responsibility is assumed as a result of its use. We cannot accept any liability nor offer any guarantee regarding data accuracy, completeness or timeliness. The information does not represent any guarantee or ensured characteristics of the Products or Systems described. No liability can be accepted based on the information, its use, recommendations or advice provided. In no event may we be held liable for any damage or loss except in the case of wilful intent or gross negligence on our part, or if any mandatory legal provisions apply. This disclaimer is an English translation of a German text, which should be referred to for all legal purposes. Any legal disputes arising from the use of this information shall be subject to German law.

Note
All information is subject to change. A printed version of this document may therefore not correspond to the latest revision. To obtain the latest version, please visit our website truckservices.knorr-bremse.com or contact a Knorr-Bremse representative in your area.

If service work is carried out on a vehicle based on information provided herein, it is the responsibility of the workshop to ensure the vehicle is fully tested and in full functional order before the vehicle is returned into service. Knorr-Bremse accepts no liability for problems caused as a result of appropriate tests not being carried out.