

Data sheet

Nomenclature

B-14307	Technical Information – Telescopic cylinder
B	Information on cylinder selection - CHART
B	Telescopic cylinder NH SD . . . VKKU
B	Telescopic cylinder NH SD V . . . VKKU
B	Telescopic cylinder NH SDL . . . HKKU



Data sheet

Standard types

tipping weight

B- 10624	NHSD 45 -....- 4VKKU	60 kN (6 to)
B- 10615	NHSD 45 -....- 5VKKU	80 kN (8 to)
B- 10616	NHSD 45 -....- 6VKKU	100 kN (10 to)
B- 10344	NHSD 45 -....- 7VKKU	120 kN (12 to)
B- 10608	NHSD 45 -....- 8VKKU	140 kN (14 to)
B- 10633	NHSD 45 -....- 9VKKU	140 kN (14 to)
B- 10617	NHSD 60 -....- 3VKKU	80 kN (8 to)
B- 10618	NHSD 60 -....- 4VKKU	100 kN (10 to)
B- 10619	NHSD 60 -....- 5VKKU	120 kN (12 to)
B- 09920	NHSD 60 -....- 6VKKU	150 kN (15 to)
B- 10610	NHSD 60 -....- 7VKKU	180 kN (18 to)
B- 10634	NHSD 60 -....- 8VKKU	215 kN (21,5 to)
B- 10620	NHSD 75 -....- 2VKKU	120 kN (12 to)
B- 10621	NHSD 75 -....- 3VKKU	120 kN (12 to)
B- 10622	NHSD 75 -....- 4VKKU	150 kN (15 to)
B- 09924	NHSD 75 -....- 5VKKU	180 kN (18 to)
B- 10525	NHSD 75 -....- 6VKKU	215 kN (21,5 to)
B- 09927	NHSD 75 -....- 7VKKU	250 kN (25 to)
B- 10623	NHSD 91 -....- 2VKKU	180 kN (18 to)
B- 10382	NHSD 91 -....- 3VKKU	180 kN (18 to)
B- 09879	NHSD 91 -....- 4VKKU	215 kN (21,5 to)
B- 10635	NHSD 91 -....- 5VKKU	250 kN (25 to)
B- 10515	NHSD 91 -....- 6VKKU	300 kN (30 to)
B- 09995	NHSD 108 -....- 2VKKU	250 kN (25 to)
B- 10445	NHSD 108 -...- 3VKKU	250 kN (25 to)
B- 09883	NHSD 108 -....- 4VKKU	300 kN (30 to)
B- 09870	NHSD 108 -....- 5VKKU	340 kN (34 to)
B- 10636	NHSD 126 -....-3VKKU	340 kN (34 to)
B- 10637	NHSD 126 -....-4VKKU	400 kN (40 to)

Data sheet

Special designs

tipping weight

B- 10684	NHSD 45 -....-8VK VI KU	140 kN (14 to)
B- 10609	NHSD 60 -....-5VK VI KU	120 kN (12 to)
B- 10685	NHSD 60 -....-7VK VI KU	180 kN (18 to)
B- 10611	NHSD 75 -....-4VK VI KU	150 kN (15 to)
B- 09926	NHSD 75 -....-6VK VI KU	215 kN (21,5 to)
B- 10612	NHSD 91 -....-3VK VI KU	180 kN (18 to)
B- 10686	NHSD 91 -....-6VK VI KU	300 kN (30 to)
B- 10687	NHSD 108 -....-5VK VII KU	340 kN (34 to)



Data sheet

B- 10653
 B- 10345
 B- 10563
 B- 10654
 B- 09930
 B- 09931
 B- 10348
 B- 09921
 B- 09933
 B- 09822
 B- 10655
 B- 09928

Standard type

NHSD 45V -.... - 6 VKKU
 NHSD 45V -.... - 7 VKKU
 NHSD 45V -.... - 8 VKKU
 NHSD 60V -.... - 5 VKKU
 NHSD 60V -.... - 6 VKKU
 NHSD 60V -.... - 7 VKKU
 NHSD 60V -.... - 8 VKKU
 NHSD 75V -.... - 5 VKKU
 NHSD 75V -.... - 6 VKKU
 NHSD 75V -.... - 7 VKKU
 NHSD 91V -.... - 5 VKKU
 NHSD 91V -.... - 6 VKKU

tipping weight

100 kN (10 to)
 120 kN (12 to)
 140 kN (14 to)
 120 kN (12 to)
 150 kN (15 to)
 180 kN (18 to)
 215 kN (21,5 to)
 180 kN (18 to)
 215 kN (21,5 to)
 250 kN (25 to)
 250 kN (25 to)
 300 kN (30 to)

Data Sheet

B- 10688

Special design

NHSD 91V -....- 6 VK VII KU

tipping weight

300 kN (30 to)



Data Sheet
B- 13312

Standard types
NHSDL45-...-4HKKU



Neumeister Hydraulik

NHSDL...-...-HKKU - B

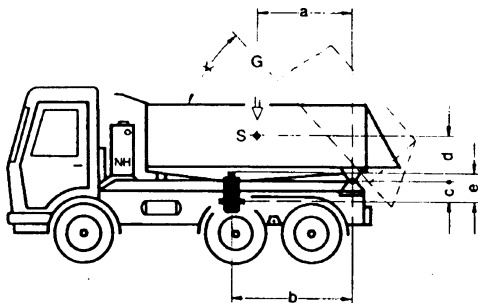
The cylinder is chosen according to the following aspects:

- tipping weight = payload + overcharge + unladen weight of the bridge
- stroke and admissible mounting height of the cylinder
- effective service pressure

In most cases, a selection with the help of the following chart and the corresponding dimensional drawings is sufficient – they are based on the following assumptions:

- the cylinder is acting upon the centre of gravity (b = a)
- tipping angle approx. 48°
- service pressure = 275 bar

In principle it is possible that several cylinders reply to the given requirements - then the required space should be taken into consideration. In special cases, or if the cylinder is not to be installed in the centre of gravity, a load-force diagram should be made. Please contact us on this subject.



However, a drawing with the following data should then be available to us:

1. Tipping weight (payload and tipping bridge)
2. Distance articulated bearing – centre of gravity (a)
3. Distance articulated bearing – cylinder centre (b)
4. Distance centre of gravity – lower border of the bridge bottom (d)
5. Distance articulated bearing – lower border of the bridge bottom (e - c)
6. Space for the cylinder (e = VKKU)
7. Requested tipping angle

Please note:

- Neumeister telescopic cylinders are suitable for all tipping devices on trucks and semi-trailers which are exclusively taking up forces.
- **Never move the vehicle while the cylinder is in tipping position !** Due to the higher positioned centre of gravity there is increased danger of accident and the cylinder might be damaged.
- It is necessary to install an arrester cable.

Selection CHART

to find out the required stroke in case of a given distance (articulated bearing to cylinder centre (b), cylinder in gravity, tipping angle 48°).

Subject to modifications !

Cylinder type	Stroke mm	height mm	distance "b" mm	Cylinder type	Stroke mm	height mm	distance "b" mm
NHSD45-...-4VKKU	814	376	1000	NHSD45-...-7VKKU	1406	381	1730
Tipping weight 60 kN	974	416	1200	Tipping weight 120 kN	1686	421	2075
	1094	446	1345		1896	451	2330
	1334	506	1640		2316	511	2850
	1574	566	1940		2736	571	3365
NHSD45-...-5VKKU	1016	377	1250	NHSD45-...-8VKKU	1594	386	1960
Tipping weight 80 kN	1216	417	1495	Tipping weight 140 kN	1914	426	2355
	1366	447	1680		2154	456	2650
	1666	507	2050		2634	516	3240
	1966	567	2420		3114	576	3830
NHSD45-...-6VKKU	1218	376	1500	NHSD45-...-9VKKU	1768	391	2175
Tipping weight 100 kN	1458	416	1790	Tipping weight 140 kN	2128	431	2615
	1638	446	2015		2398	461	2950
	1998	506	2455		2938	521	3615
	2358	566	2900		3478	581	4280

Cylinder type	Stroke mm	height mm	distance "b" mm	Cylinder type	Stroke mm	height mm	distance "b" mm
NHSD60-. . .-3VKKU Tipping weight 80 kN	609	394	750	NHSD75-. . .-2VKKU Tipping weight 120 kN	404	402	500
	729	434	895		484	442	595
	819	464	1005		544	472	670
	999	524	1230		664	532	815
	1179	584	1450		784	592	965
	1344	639	1655		894	647	1100
	1509	694	1855		1004	702	1235
	1659	744	2040		1104	752	1360
NHSD60-. . .-4VKKU Tipping weight 100 kN	811	395	995	NHSD75-. . .-3VKKU Tipping weight 120 kN	606	403	745
	971	435	1195		726	443	890
	1091	465	1340		816	473	1005
	1331	525	1635		996	533	1225
	1571	585	1930		1176	593	1530
	1791	640	2200		1341	648	1650
	2011	695	2475		1506	703	1850
	2211	745	2720		1656	753	2035
NHSD60-. . .-5VKKU Tipping weight 120 kN	1013	394	1245	NHSD75-. . .-4VKKU Tipping weight 150 kN	808	402	995
	1213	434	1490		968	442	1190
	1363	464	1675		1088	472	1340
	1663	524	2045		1328	532	1635
	1963	584	2415		1568	592	1930
	2238	639	2750		1788	647	2200
	2513	694	3090		2008	702	2470
	2763	744	3400		2208	752	2715
NHSD60-. . .-6VKKU Tipping weight 150 kN	1201	399	1475	NHSD75-. . .-5VKKU Tipping weight 180 kN	2504	852	3080
	1441	439	1770		2824	932	3475
	1621	469	1995		3144	1012	3865
	1981	529	2435		996	407	1225
	2341	589	2880		1196	447	1470
	2671	644	3285		1346	477	1655
	3001	699	3690		1646	537	2025
	3301	749	4060		1946	597	2395
NHSD60-. . .-7VKKU Tipping weight 180 kN	1389	404	1710	NHSD75-. . .-6VKKU Tipping weight 215 kN	2221	652	2730
	1669	444	2050		2496	707	3070
	1879	474	2310		2746	757	3375
	2299	534	2830		3110	857	3825
	2719	594	3345		3510	937	4315
	3104	649	3820		3910	1017	4810
	3489	704	4290		1184	412	1455
	3839	754	4720		1424	452	1605
NHSD60-. . .-8VKKU Tipping weight 215 kN	1563	409	1920	NHSD75-. . .-7VKKU Tipping weight 250 kN	1604	482	1750
	1883	449	2315		1964	542	2415
	2123	479	2610		2324	602	2860
	2603	539	3200		2654	657	3265
	3083	599	3790		2984	712	3670
	3523	654	4335		3284	762	4040
	3963	709	4875		3716	862	4570
	4363	759	5365		4196	942	5160
			4676	1022	5750		
			1358	417	1670		
			1638	457	2015		
			1848	487	2275		
			2268	547	2790		
			2688	607	3305		
			3073	662	3780		
			3458	717	4255		
			3808	747	4685		
			4303	847	5290		
			4863	947	5980		
			5423	1027	6670		

Änderungen vorbehalten!

Cylinder type	stroke mm	height mm	distance "b" mm	Cylinder type	stroke mm	height mm	distance "b" mm
NHSD91-...-2VKKU	404	403	490	NHSD108-...-3VKKU	1327	666	1630
Tipping weight 180 kN	484	443	595	Tipping weight 250 kN	1492	721	1835
	544	473	670		1642	771	2020
	664	533	815		1848	871	2275
	784	593	965		2098	951	2580
	894	648	1100		2338	1031	2875
	1004	703	1235		2638	1131	3245
	1104	753	1360				
NHSD91-...-3VKKU	606	402	745	NHSD108-...-4VKKU	1760	671	2165
Tipping weight 180 kN	726	442	890	Tipping weight 300kN	1980	726	2435
	816	472	1005		2180	776	2680
	996	532	1225		2464	876	3030
	1176	592	1445		2784	956	3425
	1341	647	1650		3104	1036	3820
	1506	702	1850		3504	1136	4310
	1656	752	2035				
	1878	852	2310				
	2118	932	2605				
	2358	1012	2900				
	2658	1112	3270				
NHSD91-...-4VKKU	954	447	1175	NHSD108-...-5VKKU	2179	676	2680
Tipping weight 215 kN	1074	477	1320	Tipping weight 340 kN	2454	731	3020
	1314	537	1615		2704	781	3325
	1554	597	1910		3051	881	3750
	1774	652	2180		3451	961	4245
	1994	707	2450		3851	1041	4735
	2194	757	2700		4351	1141	5350
	2484	857	3095				
	2804	937	3450				
	3124	1017	3840				
	3524	1117	4335				
NHSD91-...-5VKKU	1332	482	1640	NHSD126-...-3VKKU	1313	671	1615
Tipping weight 250 kN	1632	542	2005	Tipping weight 340 kN	1478	726	1820
	1932	602	2375		1628	776	2000
	2207	657	2715		1838	876	2260
	2482	712	3050		2078	956	2555
	2732	762	3360		2318	1036	2850
	3090	862	3800		2618	1136	3220
	3490	942	4290				
	3890	1022	4785				
	4390	1122	5400				
NHSD91-...-6VKKU	1576	487	1940	NHSD126-...-4VKKU	1732	676	2130
Tipping weight 300 kN	1936	547	2380	Tipping weight 400 kN	1952	731	2400
	2296	607	2825		2152	781	2645
	2626	662	3230		2425	881	2980
	2956	717	3635		2745	961	3375
	3256	767	4005		3065	1041	3770
	3677	867	4520		3465	1141	4260
	4156	947	5110				
	4637	1027	5705				
	5237	1127	6440				
NHSD108-...-2VKKU	894	661	1100				
Tipping weight 250 kN	1004	716	1235				
	1104	766	1360				
	1252	866	1540				
	1412	946	1735				
	1572	1026	1940				
	1772	1126	2180				

Änderungen vorbehalten!

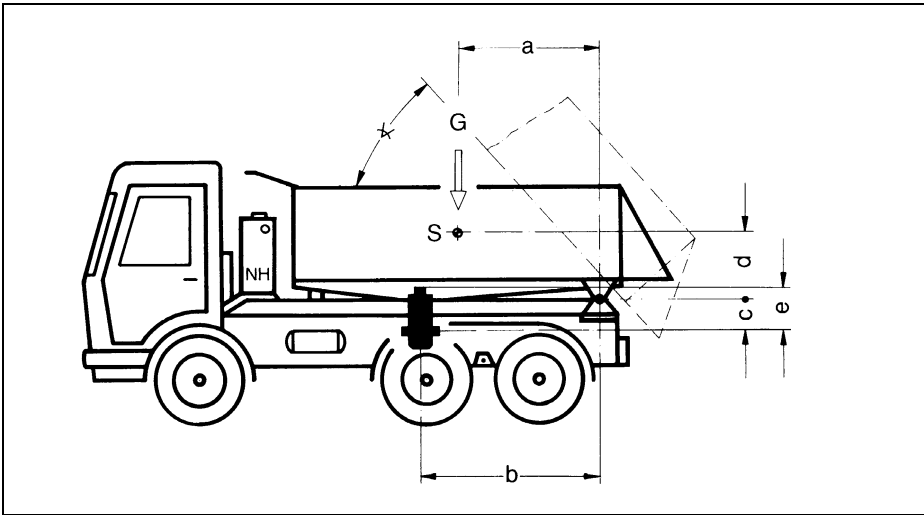
Selection CHART

to find out the required stroke in case of a given distance (articulated bearing to cylinder centre (b), cylinder in gravity, tipping angle 48°).

Ball socket lowered

Cylinder type	stroke mm	height mm	distance "b" mm	Cylinder type	stroke mm	height mm	distance "b" mm
NHSD45V-...-6VKKU	1258	384	1545	NHSD60V-...-8VKKU	1723	409	2120
Tipping weight 250 kN	1478	424	1820	Tipping weight 215 kN	1993	449	2450
	1698	474	2090		2363	495	2905
	2058	534	2530		2843	555	3495
					3298	615	4055
					3738	670	4595
					4153	725	5110
NHSD45V-...-7VKKU	1486	389	1830	NHSD75V-...-5VKKU	1076	407	1325
Tipping weight 120kN	1736	429	2135	Tipping weight 180kN	1246	447	1535
	2016	479	2480		1466	485	1805
	2423	539	2980		1766	545	2170
					2051	605	2520
					2326	660	2860
					2586	715	3180
NHSD45V-...-8VKKU	1714	394	2110	NHSD75V-...-6VKKU	1304	412	1605
Tipping weight 140 kN	1994	434	2450	Tipping weight 215 kN	1504	452	1850
	2334	484	2870		1784	490	2195
	2814	544	3460		2144	550	2635
					2484	610	3055
					2814	665	3460
					3124	720	3840
NHSD60V-...-5VKKU	1053	394	1295	NHSD75V-...-7VKKU	1518	417	1865
Tipping weight 120 kN	1233	434	1515	Tipping weight 250 kN	1748	457	2150
	1423	480	1750		2088	495	2570
	1723	540	2120		2508	555	3085
	2013	600	2475		2903	615	3570
	2288	655	2815		3288	670	4045
	2553	710	3140		3648	725	4485
NHSD60V-...-6VKKU	1281	399	1575	NHSD91V-...-5VKKU	1102	412	1355
Tipping weight 150 kN	1491	439	1835	Tipping weight 250 kN	1262	452	1550
	1741	485	2140		1512	490	1860
	2101	545	2585		1812	550	2230
	2446	605	3010		2092	610	2575
	2776	660	3415		2367	665	2910
	3091	715	3800		2622	720	3225
NHSD60V-...-7VKKU	1509	404	1855	NHSD91V-...-6VKKU	1316	417	1620
Tipping weight 180 kN	1759	444	2165	Tipping weight 300 kN	1506	457	1850
	2059	490	2530		1816	495	2235
	2479	550	3050		2176	555	2675
	2879	610	3540		2511	615	3090
	3264	665	4015		2841	670	3495
	3629	720	4465		3146	725	3870

Subject to modifications !



GENERAL INFORMATION:

Neumeister telescopic cylinders with universal joint suspension are suitable for the most severe conditions in all tipping equipment of trucks and semi-trailers where they are exclusively meant for taking up forces.

The cylinders have a robust design and, thanks to the modular assembly system, many versions shown on the following dimensional sheets can be supplied in series. For the determination of the appropriate size of the cylinder, we recommend to make a load-force diagram. In case this documentation is not sufficient for you to exactly determine the cylinder, we will be pleased to do this job for you. For this purpose we would then need the details as shown on the picture, such as e.g. weight (payload and bridge), dimensions and the available space.

DESCRIPTION:

Since mode of application, ambient conditions and running time have important requirements on the cylinders the latter are equipped with wear resisting sealings. The tubes are made of high-strength steel and can be furnished with various surface treatments. In standard version, the telescopic steps are unchromed – upon surcharge, a chroming of the highest telescopic step (hv/1) or all steps (hv) is possible. The maximum permissible load is indicated on the pressure diagram of the dimensional sheet and the maximum service pressure is 275 bar (Attention! – mind the carrying force of the ball and cardan). For all sizes and designs, an appropriate adjustable switching-off device for MONO or DOUBLE TUBE SYSTEM can be

supplied along (to be ordered separately). When working with a DOUBLE TUBE SYSTEM, a special safety device is required by the UVV regulations which can be supplied by us if necessary. Since there is increasing demand for low weights and short fitting lengths, the telescopic cylinders with universal joint suspension are offered in two series:

- NHSD ... standard version
- NHSD ... V standard version with sunk-in ball socket

OPERATING INSTRUCTIONS:

To guarantee a trouble-free operation, the following points should be taken into account when designing the tipping body as well as mounting and servicing the cylinder:

1. The fitting height must exceed the VKKU dimension of the cylinder by approx. 30 mm to prevent the loaded tipping bridge from acting on the cylinder while the vehicle is moved.
2. The indicated maximum angle of inclination of the cylinder must not be exceeded in any case.
3. Easily sliding bulk load might lead to a tipping over of the loading ramp and thus cause a tearing off of the cylinder. Therefore it is necessary to install an arrester cable.
4. When doing welding work around the cylinder one has to make sure that the latter is thoroughly covered and protected from welding beads and sparks (Attention! during welding the earth cable must be located right next to the parts to be welded since otherwise there is danger of contact welding within the cylinder).
5. The adjusting screws located at the release and limit valve are to be secured by the appropriate counter-screw after each adjustment.

6. The switch-off function for reverse tipping should be adjusted in a way that the last step does not reach the limit stop.
7. Prior to painting the cylinder or the surroundings one has to make sure that the telescopic steps, the bearings as well as the release mechanism are thoroughly covered.
8. The hydraulic system has to be operated with an appropriate hydraulic oil. It is recommendable to install a pressure filter or a reflux filter.
9. A regular cleaning of the blank parts as well as lubrication (e.g. of mounting clearance in case of unchromed cylinders) considerably affects the longevity of the sealings. In no case, aggressive cleaning agents are to be used.
10. By means of the installed lubricating nipples both the ball socket and the universal joint are to be greased once a week.
11. Any work that might cause contamination (e.g. welding, grinding, etc.) are to be omitted while the conduct or pipe is opened and/or the steps extended.

EXAMPLE for denomination:

NHSD 108- 2464- 4 VKKU 250 . . .

NHSD = telescopic cylinder
 108 = smallest piston diameter
 2464 = total stroke
 4 = number of telescopic steps
 VKKU = full cardan ball head
 250 = measure from ball head to cardan centre
 . . . = surface treatment

no remark	<i>telescopic steps unchromed</i>
hv15	<i>all telescopic steps chromed 20µm</i>
hv / 1	<i>only step 1 chromed 20 µm</i>

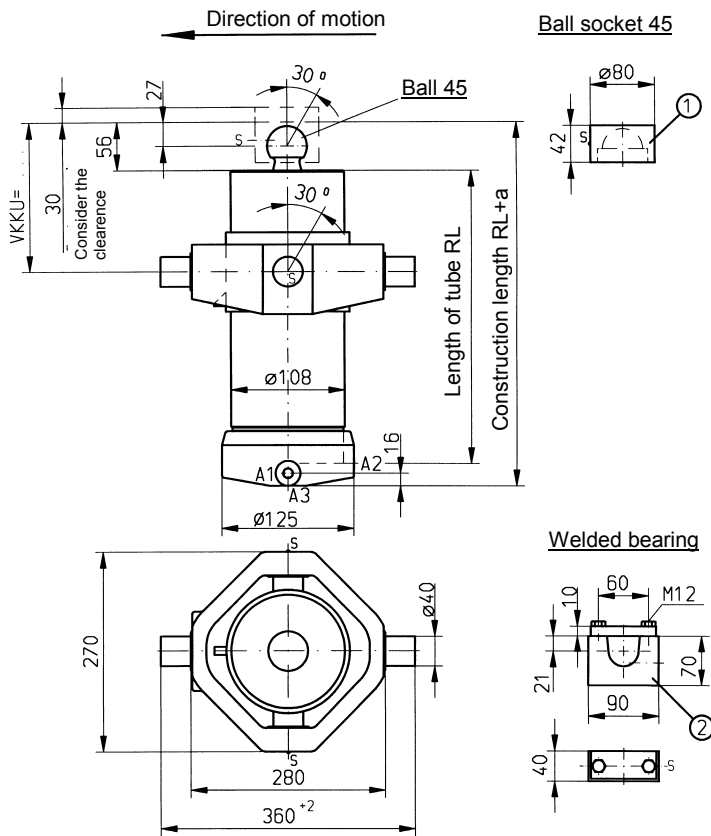
The position of the requested connection and the size of the connecting thread are to be indicated when placing an order. If no information is given, the cylinder will be supplied with standard connection A1.

Subject to modifications !



Tipping weight 60 kN (6 to)

Cylinder at centre of gravity, tipping angle 48°



Technical Data

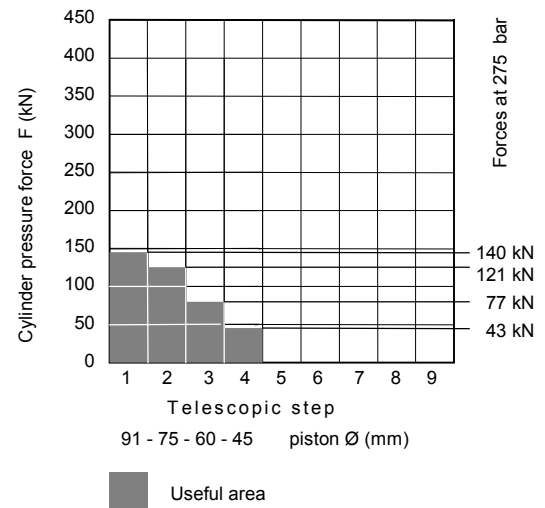
Working pressure	max. 300 bar
Number of telescopic steps	4
Working temperature	-25°C - +80°C
Carrying force ball 45	140 kN
Carrying force cardan IV-2	200 kN

VKKU- dimension ≥ RL 290 min. 140; max. RL-60
Versions in 20 mm distances possible

Release valve VB16-2 IV-2 VB16-4 IV-2

Lubricating nipple	5 pieces, DIN 71412
Standard connection	A1= M22x1,5
Special connection	A2, A3= M22x1,5

Load diagram



The following parts are to be ordered separately:

Pos	Piece	Denomination	Order Nr.	Weight
1	1	Ball socket 45	506-10000	0,8 kg
2	2	Welded bearing	508-10000	1,8 kg/pc

Types and dimensions

Type	Small piston Ø	Total stroke	Number of steps	Cardan	Ball head	RL mm	Norm VKKU	Volume dm ³	Weight kg	a mm	Stroke of the individual telescopic steps								
											1	2	3	4	5	6	7	8	9
NHSD45- 814-4VKKU						290	180	2,6	40	86	202	202	205	205					
NHSD45- 974-4VKKU						330	180	3,7	42	86	242	242	245	245					
NHSD45-1094-4VKKU						360	200	4,1	43	86	272	272	275	275					
NHSD45-1334-4VKKU						420	220	5,0	47	86	332	332	335	335					
NHSD45-1574-4VKKU						480	240	6,0	51	86	392	392	395	395					
NHSD45-1794-4VKKU						535	250	6,8	54	86	447	447	450	450					
NHSD45-2014-4VKKU						590	270	7,6	57	86	502	502	505	505					
NHSD45-2214-4VKKU						640	270	8,4	60	86	552	552	555	555					

Subject to modifications !

Technical Information on telescopic cylinder
Technical Information on stroke limitation
Release and limiting valve

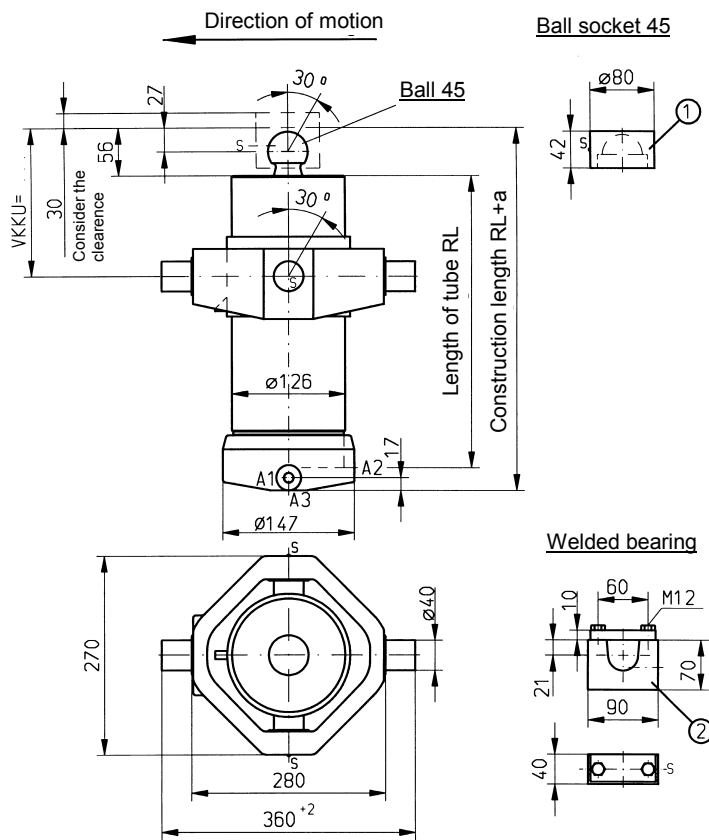
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Sheet E-14301



Neumeister Hydraulik

Tipping weight 80 kN (8 to)

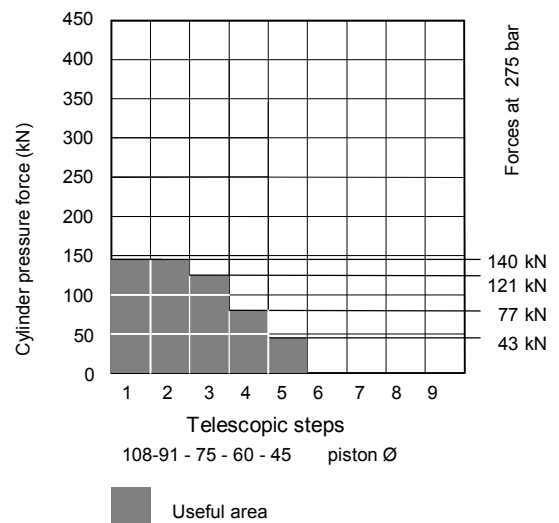
Cylinder at centre of gravity, tipping angle 48°



Technical Data

Working pressure	max. 300 bar
Number of telescopic steps	5
Working temperature	-25°C - +80°C
Carrying force ball 45	140 kN
Carrying force cardan IV-2	200 kN
VKKU-Maß ≥ RL 290	min. 140; max. RL-60 Versions in 20 mm distances possible
Release valve	VB16-2 IV-2 VB16-4 IV-2
Lubricating nipple	5 pieces, DIN 71412
Standard connection	A1= M22x1,5
Special connection	A2, A3= M22x1,5

Load diagram



The following parts are to be ordered separately:

Pos	Piece	Denomination	Order -Nr.	Weight
1	1	Ball socket 45	506-10000	0,8 kg
2	2	Welded bearing	508-10000	1,8 kg/Stk

Types and dimensions

Type	Small piston Ø	Total stroke	Number of steps	Cardan Ball head	RL mm	Norm VKKU	Volume dm ³	Weight kg	a mm	Stroke of the individual telescopic steps									
										1	2	3	4	5	6	7	8	9	
NHSD45-1016-5VKKU					290	180	4,9	49	87	202	202	202	205	205					
NHSD45-1216-5VKKU					330	180	5,7	52	87	242	242	242	245	245					
NHSD45-1366-5VKKU					360	200	6,6	54	87	272	272	272	275	275					
NHSD45-1666-5VKKU					420	220	8,1	59	87	332	332	332	335	335					
NHSD45-1966-5VKKU					480	240	9,6	64	87	392	392	392	395	395					
NHSD45-2241-5VKKU					535	250	10,9	68	87	447	447	447	450	450					
NHSD45-2516-5VKKU					590	270	12,2	73	87	502	502	502	505	505					
NHSD45-2766-5VKKU					640	270	13,5	77	87	552	552	552	555	555					

Subject to modifications

Technical Information on telescopic cylinder
 Technical Information on stroke limitation
 Release and limiting valve

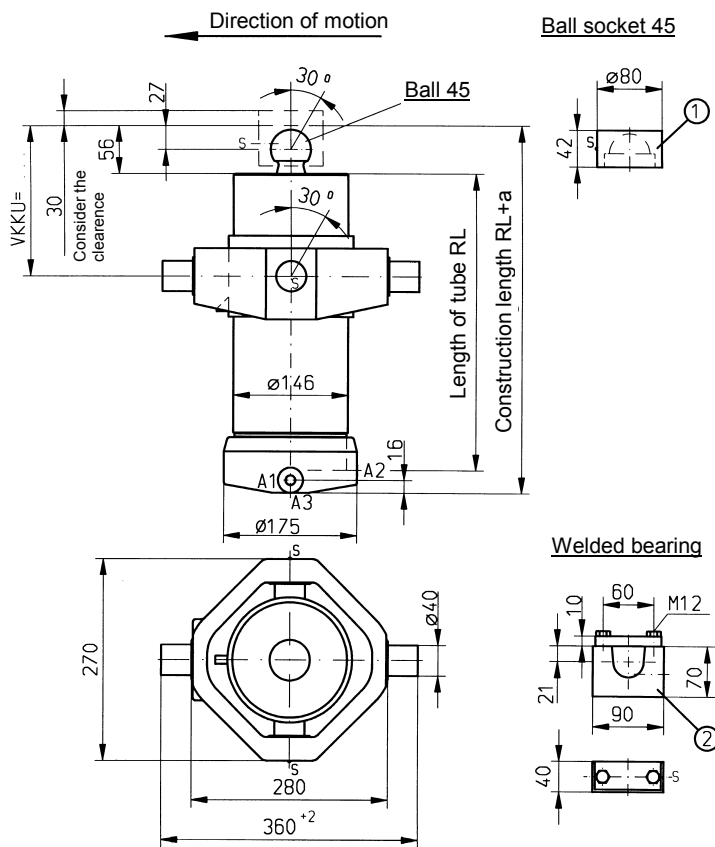
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Neumeister Hydraulik

Tipping weight 100 kN (10 to)

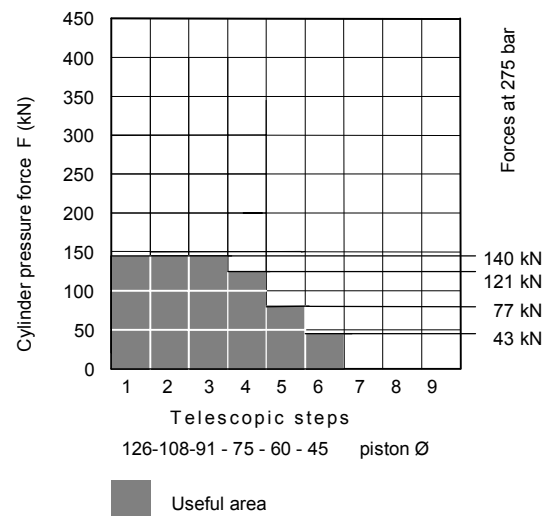
Cylinder at centre of gravity, tipping angle 48°



Technical Data

Working pressure	max. 300 bar
Number of telescopic steps	6
Working temperature	-25°C - +80°C
Carrying force ball 45	140 kN
Carrying force cardan IV-2	200 kN
VKKU-dimension ≥ RL 290	min. 140; max. RL-90 Versions in 20 mm distances possible
Release valve	VB16-2 IV-2 VB16-4 IV-2
Lubricating nipple	5 pieces, DIN 71412
Standard connection	A1= M22x1,5
Special connection	A2, A3= M22x1,5

Load diagram



The following parts are to be ordered separately:

Pos	Piece	Denomination	Order Nr.	Weight
1	1	Ball socket 45	506-10000	0,8 kg
2	2	Welded bearing	508-10000	1,8 kg/pc

Types and dimensions

Type	Small piston Ø	Total stroke	Number of steps Cardan Ball head	RL mm	Norm VKKU	Volume dm ³	Weight kg	a mm	Stroke of the individual telescopic steps										
									1	2	3	4	5	6	7	8	9		
NHSD45- 798-6VKKU				220	140	4,5	50	86	132	132	202	202	205	205					
NHSD45-1218-6VKKU				290	180	7,4	57	86	202	202	202	202	205	205					
NHSD45-1458-6VKKU				330	180	8,9	61	86	242	242	242	242	245	245					
NHSD45-1636-6VKKU				360	200	10,0	65	86	272	272	272	272	275	275					
NHSD45-1998-6VKKU				420	220	12,2	71	86	332	332	332	332	335	335					
NHSD45-2358-6VKKU				480	240	14,4	77	86	392	392	392	392	395	395					
NHSD45-2668-6VKKU				535	250	16,4	83	86	447	447	447	447	450	450					
NHSD45-3018-6VKKU				590	270	18,5	89	86	502	502	502	502	505	505					
NHSD45-3318-6VKKU				640	270	20,3	95	86	552	552	552	552	555	555					

Subject to modifications

Technical Information on telescopic cylinder
 Technical Information on stroke limitation
 Release and limiting valve

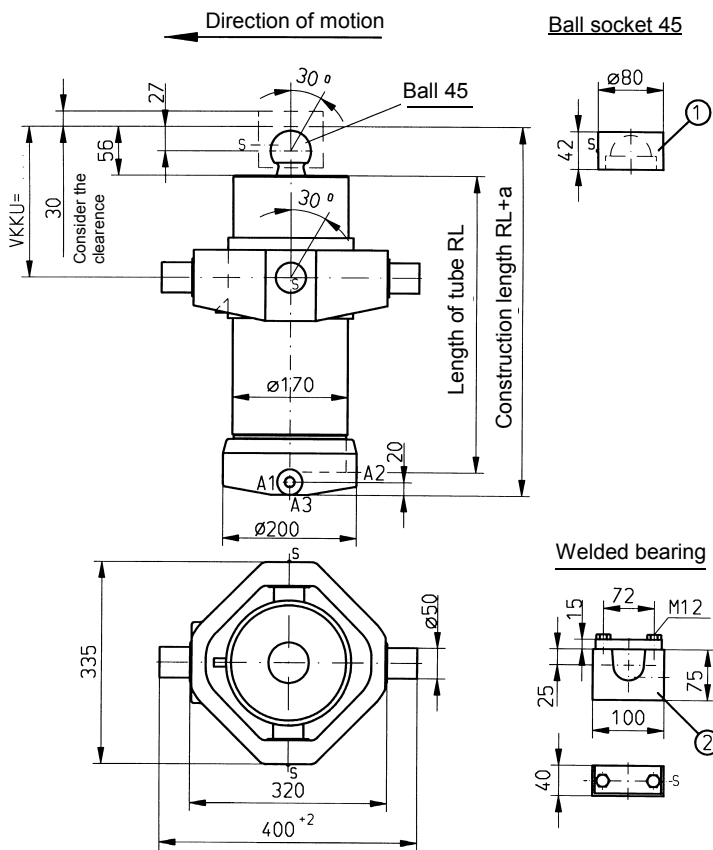
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Neumeister Hydraulik

Tipping weight 120 kN (12 to)

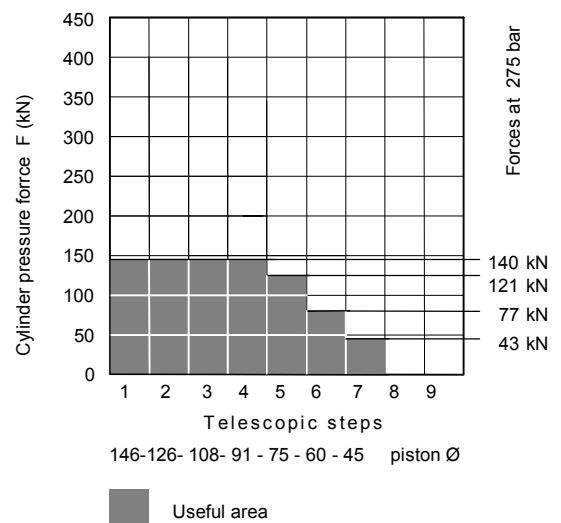
Cylinder at centre of gravity, tipping angle 48°



Technical Data

Working pressure	max. 300 bar
Number of telescopic steps	7
Working temperature	-25°C - +80°C
Carrying force ball 45	140 kN
Carrying force cardan VI-1	300 kN
VKKU-dimension \geq RL 290	min. 140; max. RL-80 Versions in 20 mm distances possible
Release valve	VB16-2 VI-1 VB16-4 VI-1
Lubricating nipple	5 pieces, DIN 71412
Standard connection	A1= M22x1,5
Special connection	A2, A3= M22x1,5

Load diagram



The following parts are to be ordered separately:

Pos	Piece	Denomination	Order Nr.	Weight
1	1	Ball socket 45	506-10000	0,8 kg
2	2	Welded bearing	508-10001	2 kg/pc

Types and dimensions

Type	Small piston Ø	Total stroke	Number of steps	Cardan	Ball head	RL mm	Norm VKKU	Volume dm ³	Weight kg	a mm	Stroke of the individual telescopic steps							
											1	2	3	4	5	6	7	8
NHSD45-1406-7VKKU						290	200	10,6	82	91	188	202	202	202	202	205	205	
NHSD45-1686-7VKKU						330	200	12,7	88	91	228	242	242	242	242	245	245	
NHSD45-1896-7VKKU						360	220	14,3	93	91	258	272	272	272	272	275	275	
NHSD45-2316-7VKKU						420	250	17,5	102	91	318	332	332	332	332	335	335	
NHSD45-2736-7VKKU						480	250	20,8	110	91	378	392	392	392	392	395	395	
NHSD45-3121-7VKKU						535	270	23,7	118	91	433	447	447	447	447	450	450	
NHSD45-3506-7VKKU						590	300	26,6	125	91	488	502	502	502	502	505	505	
NHSD45-3856-7VKKU						640	300	29,3	133	91	538	552	552	552	552	555	555	

Subject to modifications

Technical Information on telescopic cylinder
 Technical Information on stroke limitation
 Release and limiting valve

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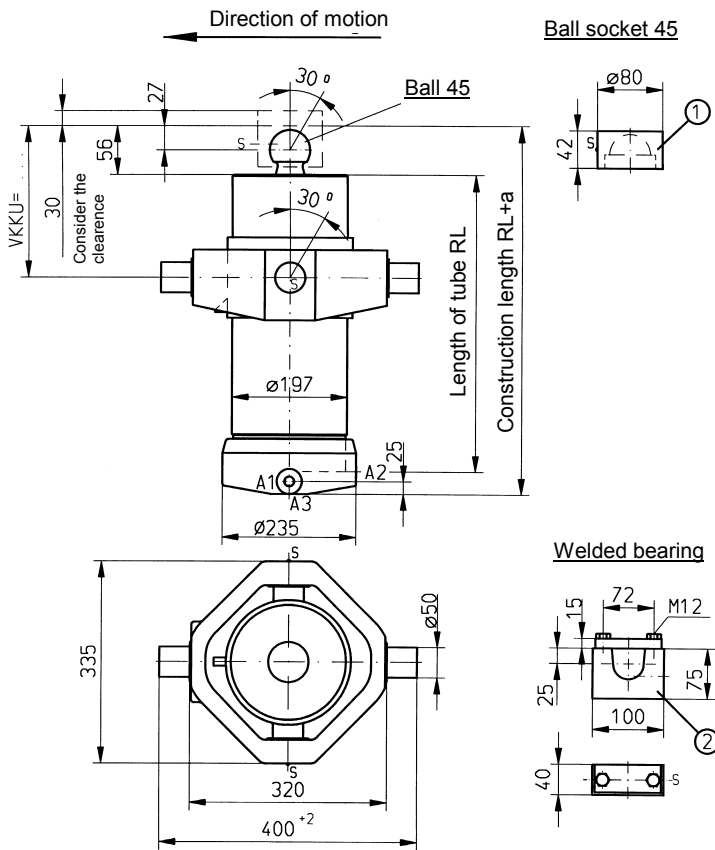


Neumeister Hydraulik

NHSD45-...-7VKKU – B-10344

Tipping weight 140 kN (14 to)

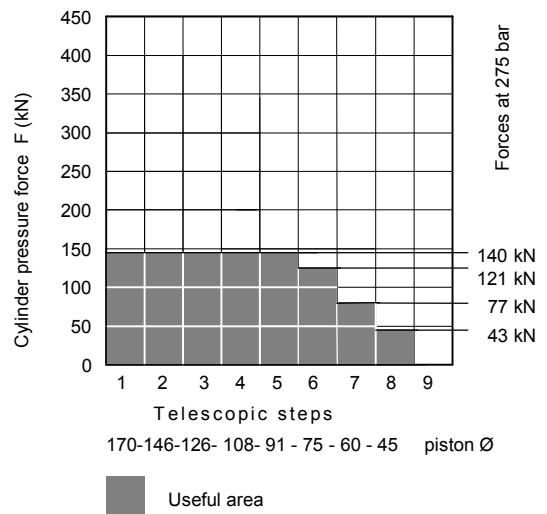
Cylinder at centre of gravity, tipping angle 48°



Technical Data

Working pressure	max. 300 bar
Number of telescopic steps	8
Working temperature	-25°C - +80°C
Carrying force ball 45	140 kN
Carrying force cardan VI-1	300 kN
VKKU-dimension \geq RL 290	min. 140; max. RL-130 Versions in 20 mm distances possible
Release valve	VB16-2 VI-1 VB16-4 VI-1
Lubricating nipple	5 pieces, DIN 71412
Standard connection	A1= M27x2 (M33x2)
Special connection	A2, A3= M27x2 (M33x2)

Load diagram



The following parts are to be ordered separately:

Pos	Piece	Denomination	Order Nr.	Weight
1	1	Ball socket 45	506-10000	0,8 kg
2	2	Welded bearing	508-10001	2 kg/pc

Types and dimensions

Type	Small piston \varnothing	Total stroke	Number of steps cardan Ball head	RL mm	Norm VKKU	Volume dm ³	Weight kg	a mm	Stroke of the individual telescopic steps								
									1	2	3	4	5	6	7	8	9
NHSD45-1594-8VKKU				290	160	14,8	112	96	188	188	202	202	202	202	202	205	205
NHSD45-1914-8VKKU				330	200	17,9	120	96	228	228	242	242	242	242	245	245	
NHSD45-2154-8VKKU				360	220	20,2	126	96	258	258	272	272	272	272	275	275	
NHSD45-2634-8VKKU				420	250	24,8	137	96	318	318	332	332	332	332	335	335	
NHSD45-3114-8VKKU				480	250	29,6	149	96	378	378	392	392	392	392	395	395	
NHSD45-3554-8VKKU				535	270	33,5	160	96	433	433	447	447	447	447	450	450	
NHSD45-3994-8VKKU				590	300	37,7	170	96	488	488	502	502	502	502	505	505	
NHSD45-4394-8VKKU				640	300	41,5	180	96	538	538	552	552	552	552	555	555	

Subject to modifications

Technical Information on telescopic cylinder
 Technical Information on stroke limitation
 Release and limiting valve

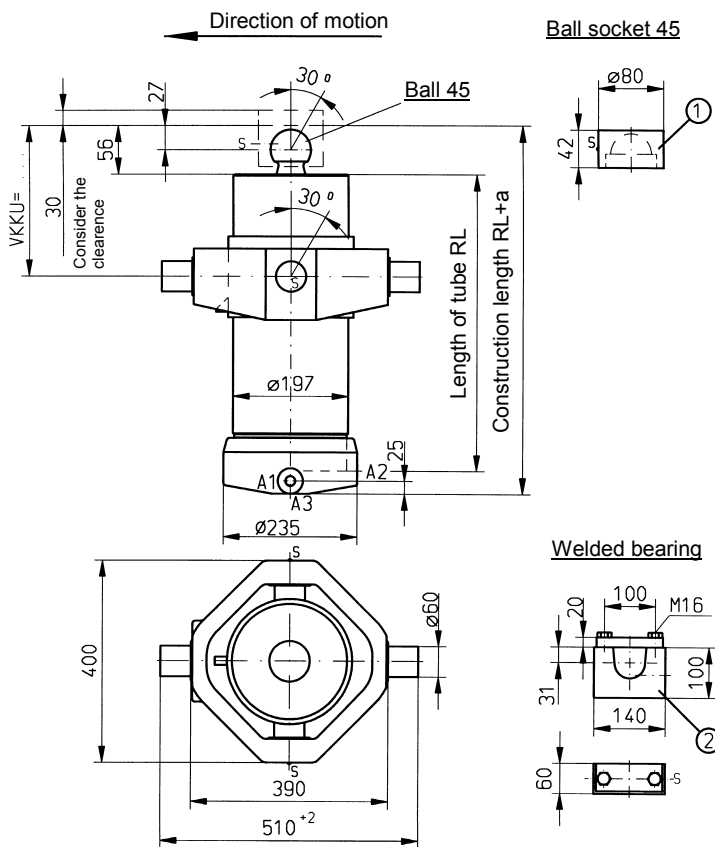
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Neumeister Hydraulik

Tipping weight 140 kN (14 to)

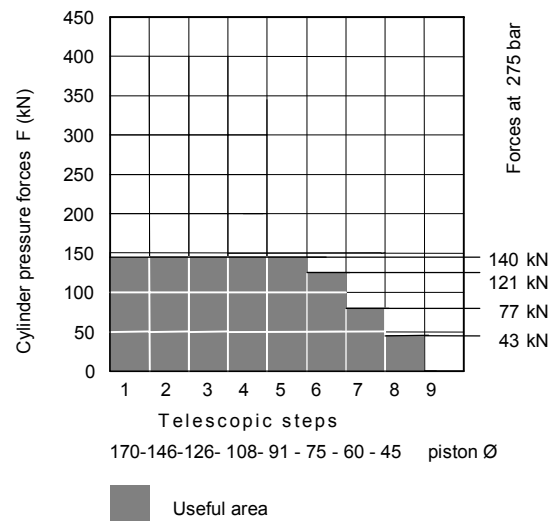
Cylinder at centre of gravity, tipping angle 48°



Technical data

Working pressure	max. 300 bar
Number of telescopic steps	8
Working temperature	-25°C - +80°C
Carrying force ball 45	140 kN
Carrying force cardan VI-3	400 kN
VKKU-dimension \geq RL 290	min. 170; max. RL-120 Versions in 20 mm distances possible
Release valve	VB16-2 VI-3 VB16-4 VI-3 VB20-1 VI-3 VB20-4 VI-3
Lubricating nipple	5 pieces, DIN 71412
Standard connection	A1= M27x2 (M33x2)
Special connection	A2, A3= M27x2 (M33x2)

Load diagram



The following parts are to be ordered separately:

Pos	Piece	Denomination	Order Nr.	Weight
1	1	Ball socket 45	506-10000	0,8 kg
2	2	Welded bearing	508-10002	6 kg/pc.

Types and dimensions

Type	Small piston Ø	Total stroke	Number of steps cardan Ball head	RL mm	Norm VKKU	Volume dm ³	Weight kg	a mm	Stroke of the individual telescopic steps								
									1	2	3	4	5	6	7	8	9
NHSD45-1594-8VKVIKU				290		14,8	126	96	188	188	202	202	202	202	205	205	
NHSD45-1914-8VKVIKU				330		17,9	134	96	228	228	242	242	242	242	245	245	
NHSD45-2154-8VKVIKU				360		20,2	140	96	258	258	272	272	272	272	275	275	
NHSD45-2634-8VKVIKU				420		24,8	151	96	318	318	332	332	332	332	335	335	
NHSD45-3114-8VKVIKU				480		29,6	163	96	378	378	392	392	392	392	395	395	
NHSD45-3554-8VKVIKU				535		33,5	173	96	433	433	447	447	447	447	450	450	
NHSD45-3994-8VKVIKU				590		37,7	184	96	488	488	502	502	502	502	505	505	
NHSD45-4394-8VKVIKU				640		41,5	194	96	538	538	552	552	552	552	555	555	

Subject to modifications

Technical Information on telescopic cylinder
 Technical Information on stroke limitation
 Release and limiting valve

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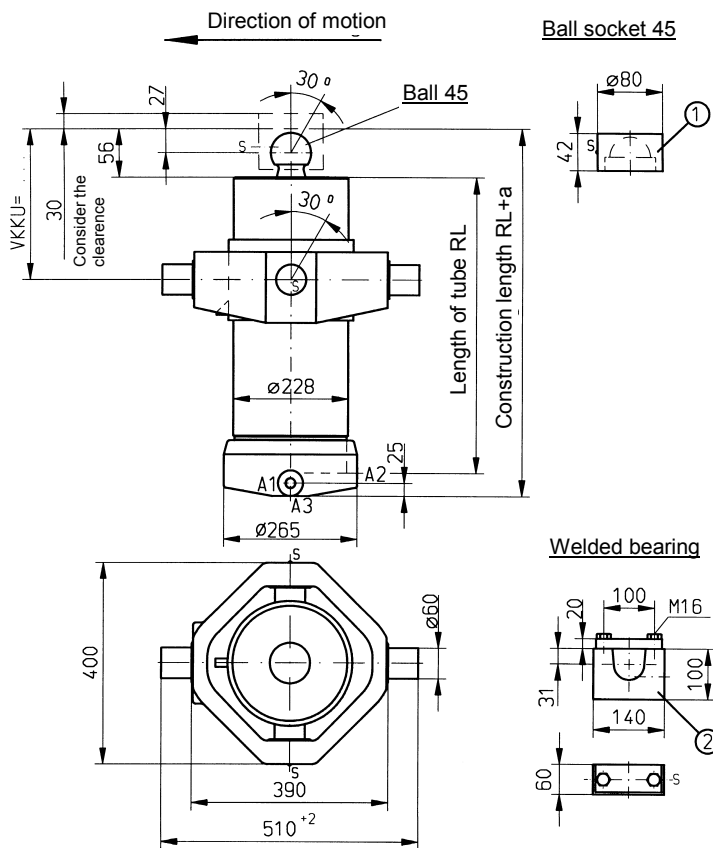


Neumeister Hydraulik

NHSD45-...-8VKVIKU – B-10684

Tipping weight 140 kN (14 to)

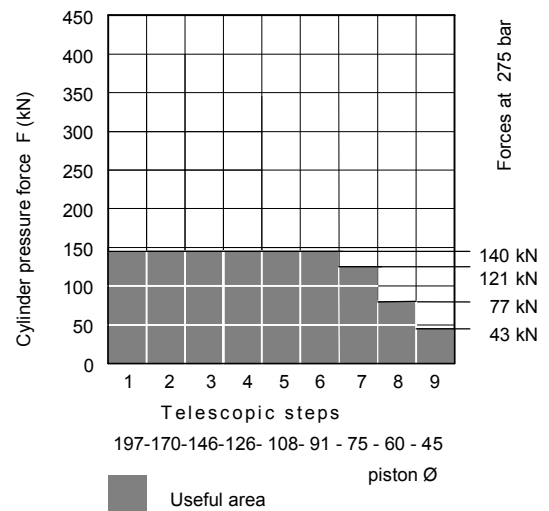
Cylinder at centre of gravity, tipping angle 48°



Technical Data

Working pressure	max. 300 bar	
Number of telescopic steps	9	
Working temperature	-25°C - +80°C	
Carrying force ball 45	140 kN	
Carrying force cardan VI-3	400 kN	
VKKU-dimension RL 290	175 – <i>rework required!</i>	
VKKU-dimension ≥ RL 330	min. 180; max. RL-150	
	Versions in 20 mm distances possible	
Release valve	VB16-2 VI-3	VB16-4 VI-3
	VB20-1 VI-3	VB20-4 VI-3
Lubricating nipple	5 pieces, DIN 71412	
Standard connection	A1=	M27x2 (M33x2)
Special connection	A2, A3=	M27x2 (M33x2)

Load diagram



The following parts are to be ordered separately:

Pos	Piece	Denomination	Order Nr.	Weight
1	1	Ball socket 45	506-10000	0,8 kg
2	2	Welded bearing	508-10002	6 kg/pc

Types and dimensions

Type	Small piston Ø	Total stroke	Number of steps Cardan Ball head	RL mm	Norm VKKU	Volume dm ³	Weight kg	a mm	Stroke of the individual telescopic steps								
									1	2	3	4	5	6	7	8	9
NHSD45-1768-9VKKU				290	175	20,1	150	101	174	188	188	202	202	202	202	205	205
NHSD45-2128-9VKKU				330	180	24,5	161	101	214	228	228	242	242	242	242	245	245
NHSD45-2398-9VKKU				360	210	27,6	169	101	244	258	258	272	272	272	272	275	275
NHSD45-2938-9VKKU				420	250	34,0	184	101	304	318	318	332	332	332	332	335	335
NHSD45-3478-9VKKU				480	250	40,7	200	101	364	378	378	392	392	392	392	395	395
NHSD45-3973-9VKKU				535	300	46,3	214	101	419	433	433	447	447	447	447	450	450
NHSD45-4468-9VKKU				590	300	52,2	228	101	474	488	488	502	502	502	502	505	505
NHSD45-4918-9VKKU				640	350	57,5	241	101	524	538	538	552	552	552	552	555	555

Subject to modifications

Technical Information on telescopic cylinder
 Technical Information on stroke limitation
 Release and limiting valve

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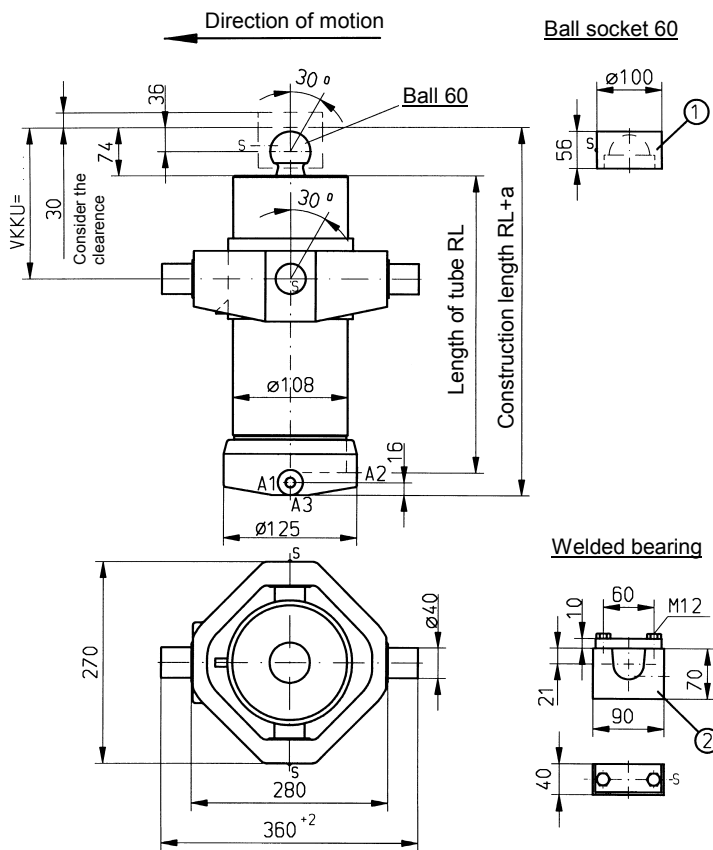


Neumeister Hydraulik

NHSD45-...-9VKKU – B-10633

Tipping weight 80 kN (8 to)

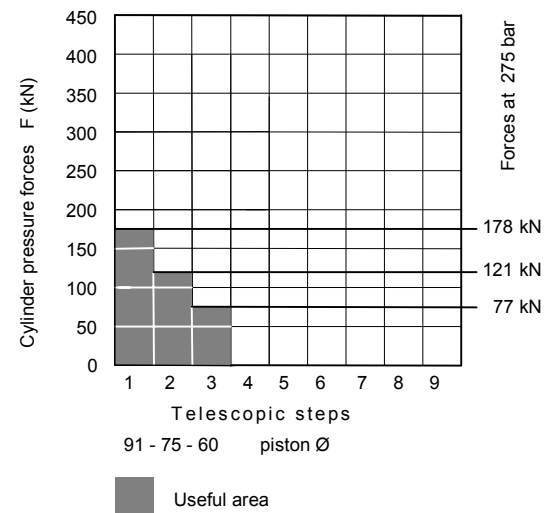
Cylinder at centre of gravity, tipping angle 48°



Technical Data

Working pressure	max. 300 bar	
Number of telescopic steps	3	
Working temperature	-25°C - +80°C	
Carrying force ball 60	250 kN	
Carrying force cardan IV-2	200 kN	
VKKU-dimension ≥ RL 290	min. 160; max. RL-40 Versions in 20 mm distances possible	
Release valve	VB16-2 IV-2	VB16-4 IV-2
Lubricating nipple	5 pieces, DIN 71412	
Standard connection	A1=	M22x1,5
Special connection	A2, A3=	M22x1,5

Load diagram



The following parts are to be ordered separately:

Pos	Piece	Denomination	Order Nr.	Weight
1	1	Ball socket 60	506-10001	1,9 kg
2	2	Welded bearing	508-10000	1,8 kg/pc

Types and dimensions

Type	Small piston Ø	Total stroke	Number of steps	Cardan	Ball head	RL mm	Norm VKKU	Volume dm ³	Weight kg	a mm	Stroke of the individual telescopic steps								
											1	2	3	4	5	6	7	8	9
NHSD60-	609-3VKKU	290	180	2,7	41	104	202	202	205										
NHSD60-	729-3VKKU	330	180	3,3	43	104	242	242	245										
NHSD60-	819-3VKKU	360	200	3,7	45	104	272	272	275										
NHSD60-	999-3VKKU	420	220	4,5	48	104	332	332	335										
NHSD60-	1179-3VKKU	480	240	5,3	52	104	392	392	395										
NHSD60-	1344-3VKKU	535	250	6,1	55	104	447	447	450										
NHSD60-	1509-3VKKU	590	270	6,9	59	104	502	502	505										
NHSD60-	1659-3VKKU	640	270	7,5	62	104	552	552	555										
NHSD60-	1881-3VKKU	740	300	8,5	68	104	626	602	629										
NHSD60-	2121-3VKKU	820	350	9,6	73	104	706	706	709										

Subject to modifications

Technical Information on telescopic cylinder
 Technical Information on stroke limitation
 Release and limiting valve

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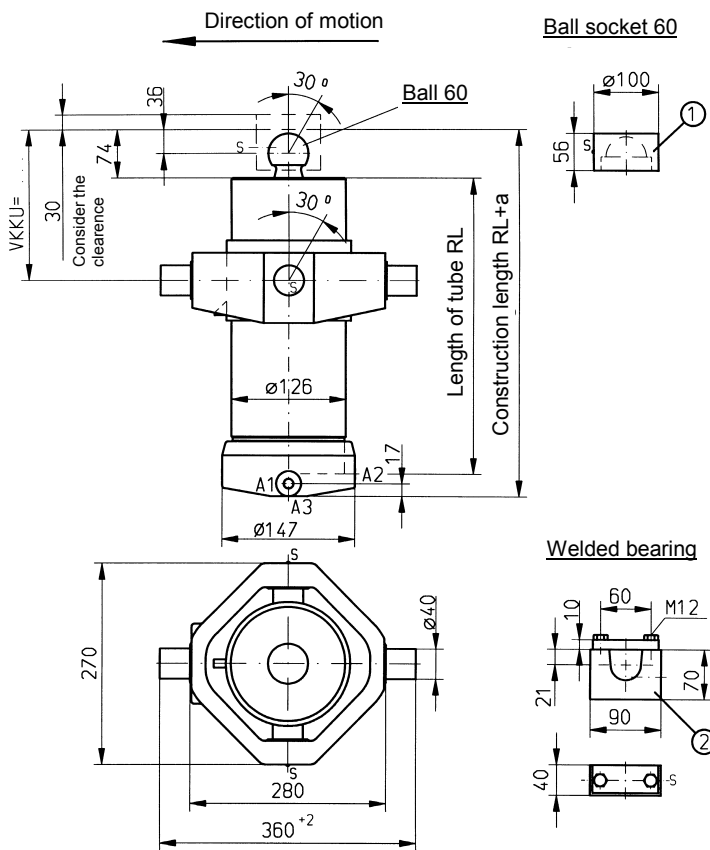


Neumeister Hydraulik

NHSD60-...-3VKKU – B-10617

Tipping weight 100 kN (10 to)

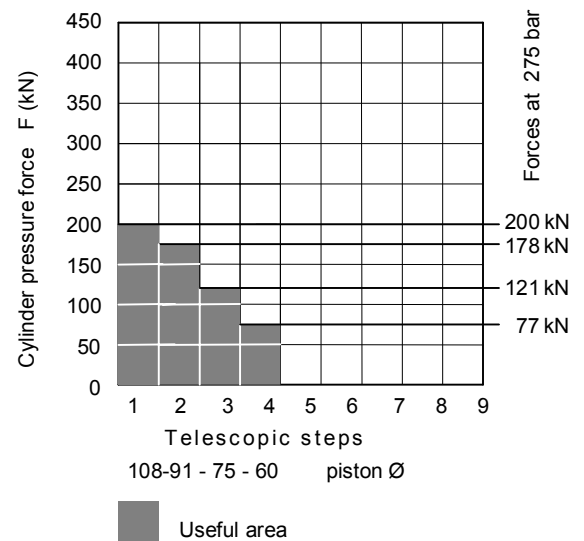
Cylinder at centre of gravity, tipping angle 48°



Technical Data

Working pressure	max. 300 bar
Number of telescopic steps	4
Working temperature	-25°C - +80°C
Carrying force ball 60	250 kN
Carrying force cardan IV-2	200 kN
VKKU-dimension ≥ RL 290	min. 160; max. RL-40 Versions in 20 mm distances possible
Release valve	VB16-2 IV-2 VB16-4 IV-2
Lubricating nipple	5 pieces, DIN 71412
Standard connection	A1= M22x1,5
Special connection	A2, A3= M22x1,5

Load diagram



The following parts are to be ordered separately:

Pos	Piece	Denomination	Order No.	Weight
1	1	Ball socket 60	506-10001	1,9 kg
2	2	Welded bearing	508-10000	1,8 kg/pc.

Types and dimensions

Type	Small piston Ø	Total stroke	Number of steps Cardan Ball head	RL mm	Norm VKKU	Volume dm ³	Weight kg	a mm	Stroke of the individual telescopic steps									
									1	2	3	4	5	6	7	8	9	
NHSD60- 811-4VKKU				290	180	4,6	50	105	202	202	202	205						
NHSD60- 971-4VKKU				330	180	5,5	53	105	242	242	242	245						
NHSD60-1091-4VKKU				360	200	6,2	56	105	272	272	272	275						
NHSD60-1331-4VKKU				420	220	7,6	61	105	332	332	332	335						
NHSD60-1571-4VKKU				480	240	8,9	65	105	392	392	392	395						
NHSD60-1791-4VKKU				535	250	10,2	70	105	447	447	447	450						
NHSD60-2011-4VKKU				590	270	11,5	74	105	502	502	502	505						
NHSD60-2211-4VKKU				640	270	12,6	78	105	552	552	552	555						
NHSD60-2507-4VKKU				740	300	14,3	87	105	626	626	602	629						
NHSD60-2827-4VKKU				820	350	16,1	93	105	706	706	706	709						

Subject to modifications

Technical Information on telescopic cylinder
 Technical Information on stroke limitation
 Release and limiting valve

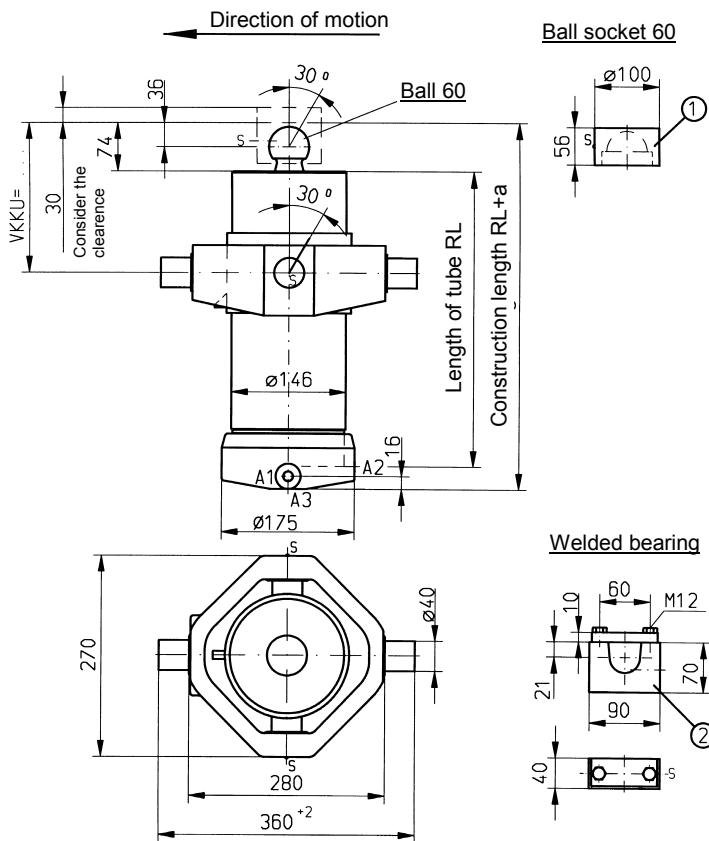
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Neumeister Hydraulik

Tipping weight 120 kN (12 to)

Cylinder at centre of gravity, tipping angle 48°



Technical Data

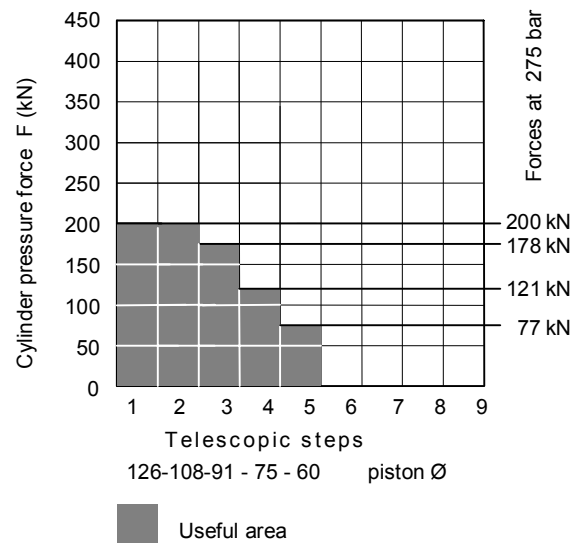
Working pressure max. 300 bar
 Number of telescopic steps 5
 Working temperature -25°C - +80°C
 Carrying force ball 60 250 kN
 Carrying force cardan IV-2 200 kN

VKKU-dimension \geq RL 290 min. 160; max. RL-70
 Versions in 20 mm distances possible

Release valve VB16-2 IV-2 VB16-4 IV-2

Lubricating nipple 5 pieces, DIN 71412
 Standard connection A1= M22x1,5
 Special connection A2, A3= M22x1,5

Load diagram



The following parts are to be ordered separately:

Pos	Piece	Denomination	Order Nr.	Weight
1	1	Ball socket 60	506-10001	1,9 kg
2	2	Welded bearing	508-10000	1,8 kg/pc

Types and dimensions

Type	Small piston Ø	Total stroke	Number of steps Cardan Ball head	RL mm	Norm VKKU	Volume dm ³	Weight kg	a mm	Stroke of the individual telescopic steps									
									1	2	3	4	5	6	7	8	9	
NHSD60-1013-5VKKU				290	180	7,1	58	104	202	202	202	202	205					
NHSD60-1213-5VKKU				330	180	8,5	63	104	242	242	242	242	245					
NHSD60-1363-5VKKU				360	200	9,6	66	104	272	272	272	272	275					
NHSD60-1663-5VKKU				420	220	11,7	73	104	332	332	332	332	335					
NHSD60-1963-5VKKU				480	240	13,8	79	104	392	392	392	392	395					
NHSD60-2238-5VKKU				535	250	15,8	85	104	447	447	447	447	450					
NHSD60-2513-5VKKU				590	270	17,7	91	104	502	502	502	502	505					
NHSD60-2763-5VKKU				640	270	19,5	96	104	552	552	552	552	555					
NHSD60-3133-5VKKU				740	300	22,2	107	104	626	626	626	602	629					
NHSD60-3533-5VKKU				820	350	24,9	116	104	706	706	706	706	709					

Technical Information on telescopic cylinder
 Technical Information on stroke limitation
 Release and limiting valve

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Subject to modifications

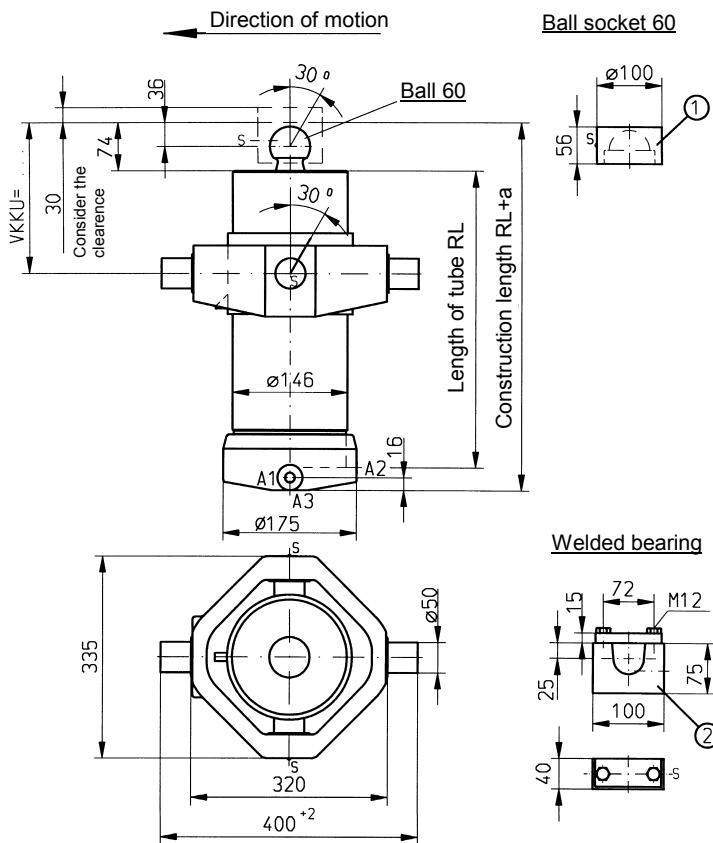


Neumeister Hydraulik

NHSD60-...-5VKKU – B-10619

Tipping weight 120 kN (12 to)

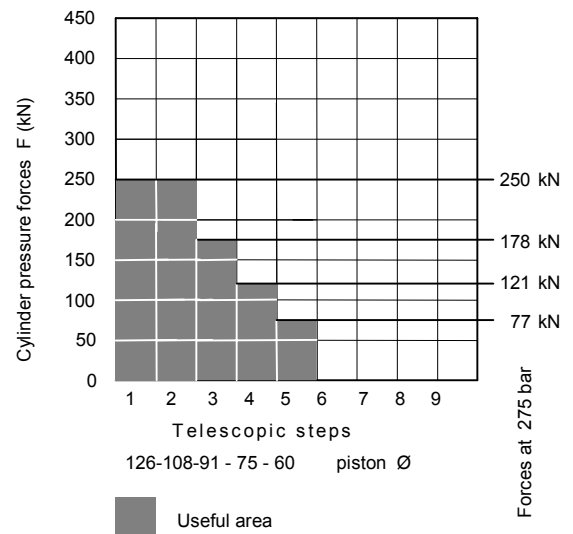
Cylinder at centre of gravity, tipping angle 48°



Technical data

Working pressure	max. 300 bar	
Number of telescopic steps	5	
Working temperature	-25°C - +80°C	
Carrying force ball 60	250 kN	
Carrying force cardan VI-1	300 kN	
VKKU-dimension \geq RL 290	min. 160; max. RL-40 Versions in 20 mm distances possible	
Release valve	VB16-2 VI-1	VB16-4 VI-1
Lubricating nipple	5 pieces, DIN 71412	
Standard connection	A1= M22x1,5	
Special connection	A2, A3= M22x1,5	

Load diagram



The following parts are to be ordered separately:

Pos	Piece	Denomination	Order Nr.	Weight
1	1	Ball socket 60	506-10001	1,9 kg
2	2	Welded bearing	508-10001	2 kg/pc.

Types and dimensions

Type	Small piston Ø	Total stroke	Number of steps Cardan Ball head	RL mm	Norm VKKU	Volume dm ³	Weight kg	a mm	Stroke of the individual telescopic steps									
									1	2	3	4	5	6	7	8	9	
NHSD60-1013-5VKVIKU				290	200	7,1	67	104	202	202	202	202	205					
NHSD60-1213-5VKVIKU				330	200	8,5	71	104	242	242	242	242	245					
NHSD60-1363-5VKVIKU				360	220	9,6	75	104	272	272	272	272	275					
NHSD60-1663-5VKVIKU				420	250	11,7	81	104	332	332	332	332	335					
NHSD60-1963-5VKVIKU				480	250	13,8	87	104	392	392	392	392	395					
NHSD60-2238-5VKVIKU				535	270	15,8	93	104	447	447	447	447	450					
NHSD60-2513-5VKVIKU				590	300	17,7	99	104	502	502	502	502	505					
NHSD60-2763-5VKVIKU				640	300	19,5	105	104	552	552	552	552	555					
NHSD60-3133-5VKVIKU				740	350	22,2	116	104	626	626	626	602	629					
NHSD60-3533-5VKVIKU				820	350	24,9	124	104	706	706	706	706	709					

Technical Information on telescopic cylinder
 Technical Information on stroke limitation
 Release and limiting valve

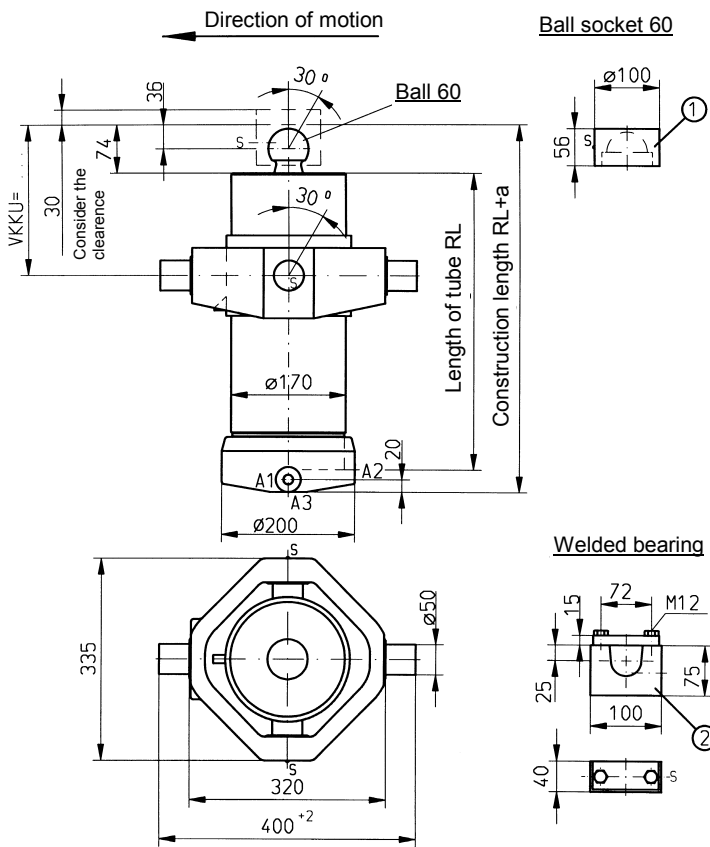
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Neumeister Hydraulik

Tipping weight 150 kN (15 to)

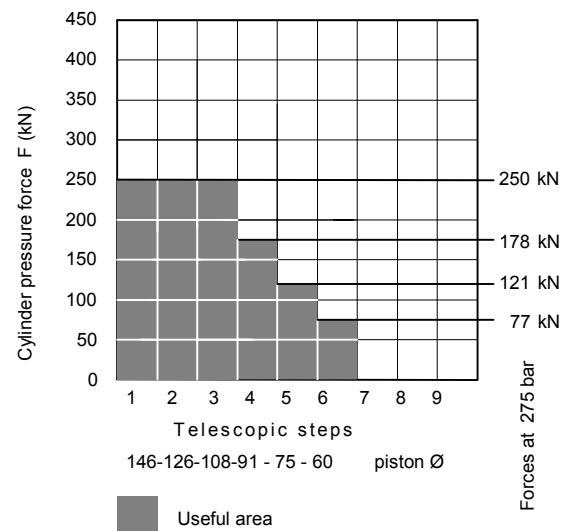
Cylinder at centre of gravity, tipping angle 48°



Technical Data

Working pressure	max. 300 bar	
Number of telescopic steps	6	
Working temperature	-25°C - +80°C	
Carrying force ball 60	250 kN	
Carrying force cardan VI-1	300 kN	
VKKU-dimension \geq RL 290	min. 160; max. RL-60 Versions in 20 mm distances possible	
Release valve	VB16-2 VI-1	VB16-4 VI-1
Lubricating nipple	5 pieces, DIN 71412	
Standard connection	A1= M22x1,5	
Special connection	A2, A3= M22x1,5	

Load diagram



The following parts are to be ordered separately:

Pos	Piece	Denomination	Order Nr.	Weight
1	1	Ball socket 60	506-10001	1,9 kg
2	2	Welded bearing	508-10001	2 kg/pc

Types and dimensions

Subject to modifications

Type	Small piston Ø	Total stroke	Number of steps	Cardan	Ball head	RL mm	Norm VKKU	Volume dm ³	Weight kg	a mm	Stroke of the individual telescopic steps											
											1	2	3	4	5	6	7	8	9			
NHSD60- 961-6VKKU						250	180	9,5	77	109	148	162	162	162	162	165						
NHSD60-1201-6VKKU						290	200	10,9	83	109	188	202	202	202	202	205						
NHSD60-1441-6VKKU						330	200	12,3	89	109	228	242	242	242	242	245						
NHSD60-1621-6VKKU						360	220	13,9	94	109	258	272	272	272	272	275						
NHSD60-1981-6VKKU						420	250	17,0	102	109	318	332	332	332	332	335						
NHSD60-2341-6VKKU						480	250	19,8	111	109	378	392	392	392	392	395						
NHSD60-2671-6VKKU						535	270	23,0	119	109	433	447	447	447	447	450						
NHSD60-3001-6VKKU						590	300	25,8	127	109	488	502	502	502	502	505						
NHSD60-3301-6VKKU						640	300	28,5	134	109	538	552	552	552	552	555						
NHSD60-3739-6VKKU						740	350	32,2	165	109	606	626	626	626	602	629						
NHSD60-4219-6VKKU						820	350	36,3	167	109	686	706	706	706	706	709						

Technical Information on telescopic cylinder
 Technical Information on stroke limitation
 Release and limiting valve

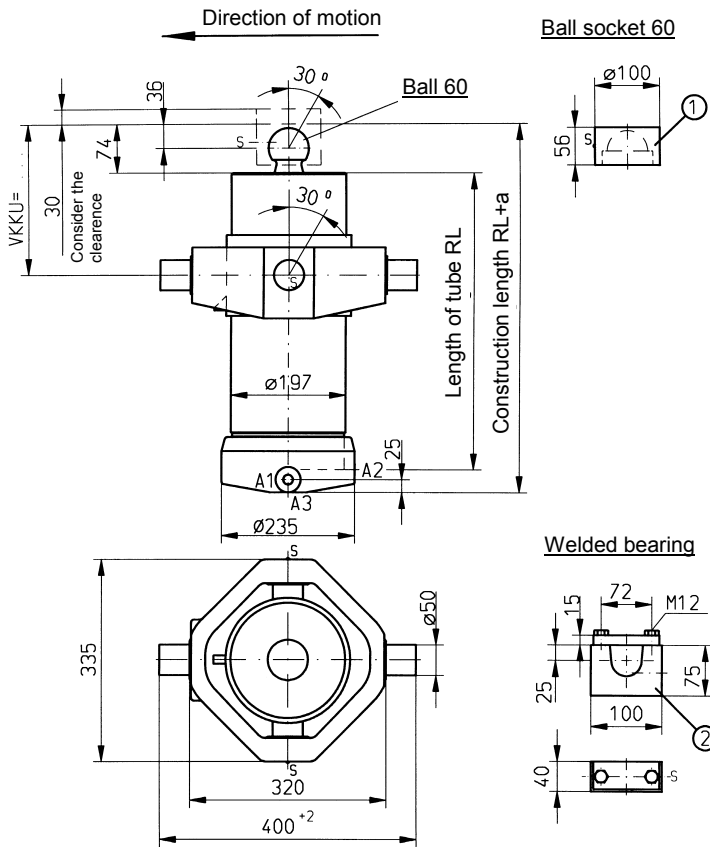
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Neumeister Hydraulik

Tipping weight 180 kN (18 to)

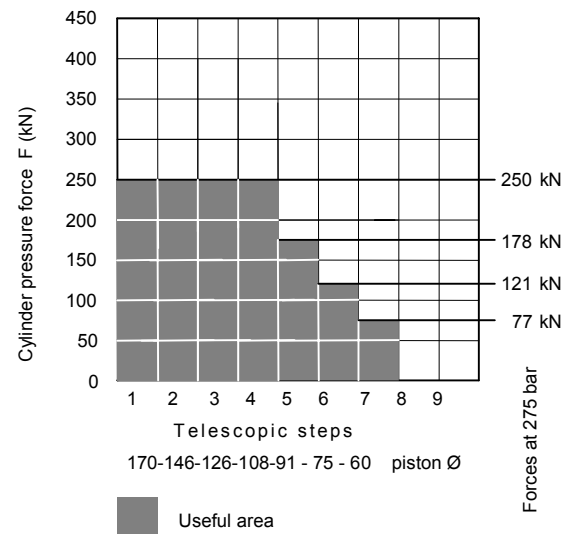
Cylinder at centre of gravity, tipping angle 48°



Technical Data

Working pressure	max. 300 bar	
Number of telescopic steps	7	
Working temperature	-25°C - +80°C	
Carrying force ball 60	250 kN	
Carrying force cardan VI-1	300 kN	
VKKU-dimension \geq RL 290	min. 160; max. RL-120 Versions in 20 mm distances possible	
Release valve	VB16-2 VI-1	VB16-4 VI-1
Lubricating nipple	5 pieces, DIN 71412	
Standard connection	A1=	M27x2 (M33x2)
Special connection	A2, A3=	M27x2 (M33x2)

Load diagram



The following parts are to be ordered separately:

Pos	Piece	Denomination	Order No.	Weight
1	1	Ball socket 60	506-10001	1,9 kg
2	2	Welded bearing	508-10001	2 kg/pc

Types and dimensions

Type	Small piston Ø	Total stroke	Number of steps cardan Ball head	RL mm	Norm VKKU	Volume dm ³	Weight kg	a mm	Stroke of the individual telescopic steps								
									1	2	3	4	5	6	7	8	9
									NHSD60-1389-7VKKU	290	170	14,5	104	114	188	188	202
NHSD60-1669-7VKKU	330	200	17,5	112	114	228	228	242	242	242	242	245					
NHSD60-1879-7VKKU	360	220	19,7	118	114	258	258	272	272	272	272	275					
NHSD60-2299-7VKKU	420	250	24,2	130	114	318	318	332	332	332	332	335					
NHSD60-2719-7VKKU	480	250	28,7	142	114	378	378	392	392	392	392	395					
NHSD60-3104-7VKKU	535	270	32,8	152	114	433	433	447	447	447	447	450					
NHSD60-3489-7VKKU	590	300	36,9	163	114	488	488	502	502	502	502	505					
NHSD60-3839-7VKKU	640	300	40,7	173	114	538	538	552	552	552	552	555					
NHSD60-4345-7VKKU	740	350	46,0	197	114	606	606	626	626	626	602	629					
NHSD60-4905-7VKKU	820	350	51,9	214	114	686	686	706	706	706	706	709					

Subject to modifications

Technical Information on telescopic cylinder
 Technical Information on stroke limitation
 Release and limiting valve

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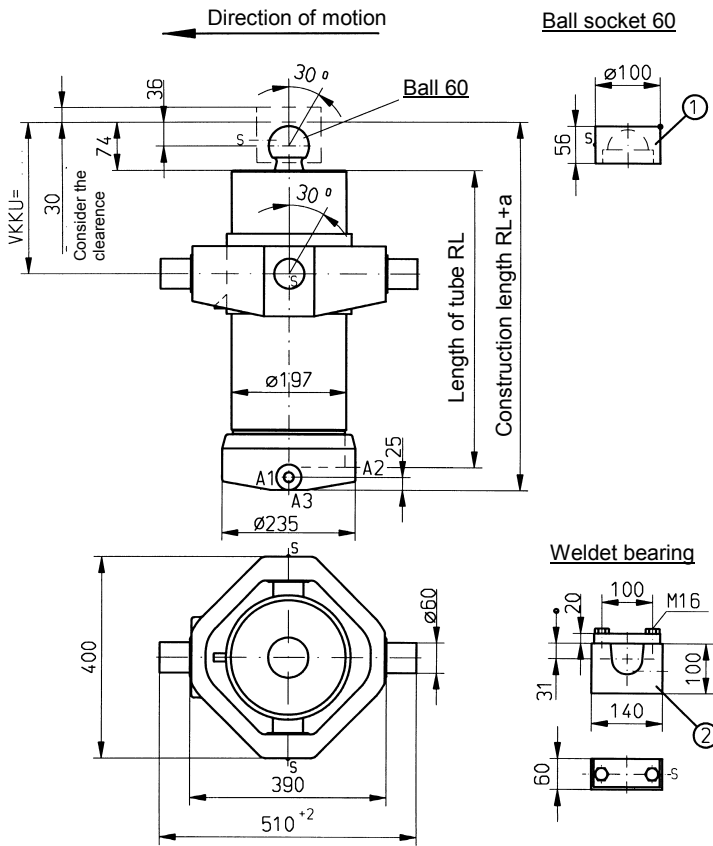


Neumeister Hydraulik

NHSD60-...-7VKKU – B-10610

Tipping weight 180 kN (18 to)

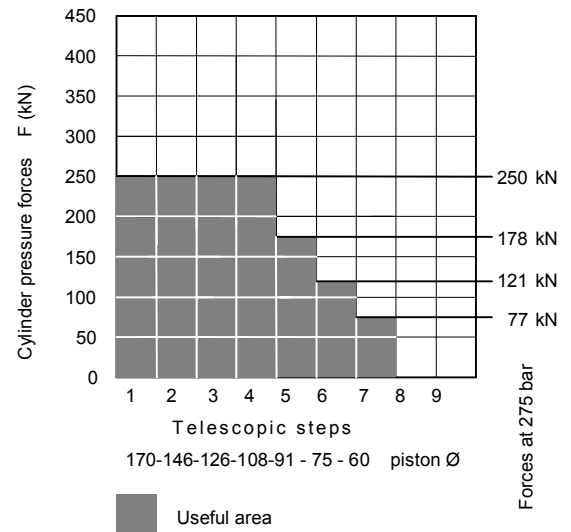
Cylinder at centre of gravity, tipping angle 48°



Technical data

Working pressure	max. 300 bar
Number of telescopic steps	7
Working temperature	-25°C - +80°C
Carrying force ball 60	250 kN
Carrying force cardan VI-3	400 kN
VKKU-dimension ≥ RL 290	min. 190; max. RL-100 Versions in 20 mm distances possible
Release valve	VB16-2 VI-3 VB16-4 VI-3 VB20-1 VI-3 VB20-4 VI-3
Lubricating nipple	5 pieces, DIN 71412
Standard connection	A1= M27x2 (M33x2)
Special connection	A2, A3= M27x2 (M33x2)

Load diagram



The following parts are to be ordered separately:

Pos	Piece	Denomination	Order Nr.	Weight
1	1	Ball socket 60	506-10001	1,9 kg
2	2	Welded bearing	508-10002	6 kg/pc.

Types and dimensions

Type	Small piston Ø	Total stroke	Number of steps cardan Ball head	RL mm	Norm VKKU	Volume dm ³	Weight kg	a mm	Stroke of the individual telescopic steps								
									1	2	3	4	5	6	7	8	9
									NHSD60-1389-7VKVIKU	290	14,5	127	114	188	188	202	202
NHSD60-1669-7VKVIKU	330	17,5	135	114	228	228	242	242	242	242	245						
NHSD60-1879-7VKVIKU	360	19,7	141	114	258	258	272	272	272	272	275						
NHSD60-2299-7VKVIKU	420	24,2	153	114	318	318	332	332	332	332	335						
NHSD60-2719-7VKVIKU	480	28,7	164	114	378	378	392	392	392	392	395						
NHSD60-3104-7VKVIKU	535	32,8	175	114	433	433	447	447	447	447	450						
NHSD60-3489-7VKVIKU	590	36,9	185	114	488	488	502	502	502	502	505						
NHSD60-3839-7VKVIKU	640	40,7	196	114	538	538	552	552	552	552	555						
NHSD60-4345-7VKVIKU	740	46,0	220	114	606	606	626	626	626	602	629						
NHSD60-4905-7VKVIKU	820	51,9	237	114	686	686	706	706	706	706	709						

Subject to modifications

Technical Information on telescopic cylinder
 Technical Information on stroke limitation
 Release and limiting valve

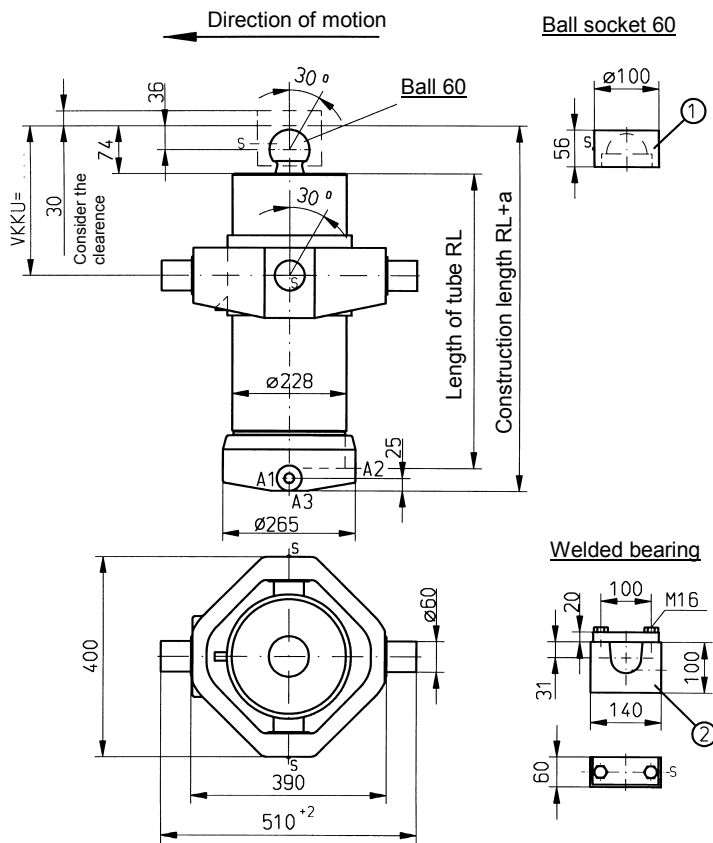
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Neumeister Hydraulik

Tipping weight 215 kN (21,5 to)

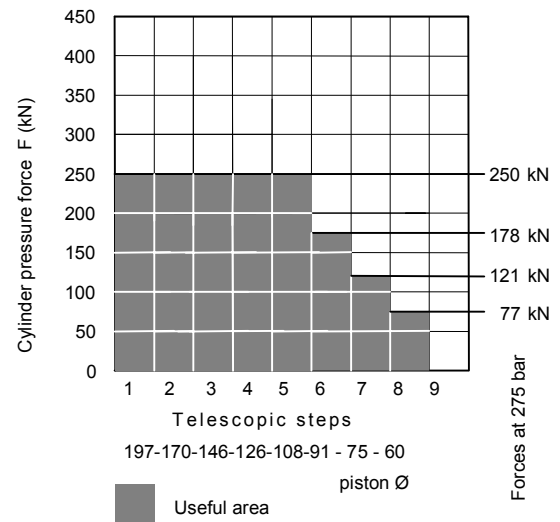
Cylinder at centre of gravity, tipping angle 48°



Technical Data

Working pressure	max. 300 bar	
Number of telescopic steps	8	
Working temperature	-25°C - +80°C	
Carrying force ball 60	250 kN	
Carrying force cardan VI-3	400 kN	
VKKU-dimension RL 290	190; <i>only with rework!</i>	
VKKU-dimension ≥ RL 330	min. 190; max. RL-140	
	Versions in 20 mm distances possible	
Release valve	VB16-2 VI-3	VB16-4 VI-3
	VB20-1 VI-3	VB20-4 VI-3
Lubricating nipple	5 pieces, DIN 71412	
Standard connection	A1=	M27x2 (M33x2)
Special connection	A2, A3=	M27x2 (M33x2)

Load diagram



The following parts are to be ordered separately:

Pos	Piece	Denomination	Order Nr.	Weight
1	1	Ball socket 60	506-10001	1,9 kg
2	2	Welded bearing	508-10002	6 kg/pc

Types and dimensions

Subject to modifications	Type	Small piston Ø	Total stroke	Number of steps Cardan Ball head	RL mm	Norm VKKU	Volume dm ³	Weight kg	a mm	Stroke of the individual telescopic steps								
										1	2	3	4	5	6	7	8	9
										NHSD60-1536-8VKKU	290	190	19,8	152	119	174	188	188
NHSD60-1883-8VKKU	330	190	24,1	162	119	214	228	228	242	242	242	242	245					
NHSD60-2123-8VKKU	360	220	27,2	170	119	244	258	258	272	272	272	272	275					
NHSD60-2603-8VKKU	420	250	33,5	186	119	304	318	318	332	332	332	332	335					
NHSD60-3083-8VKKU	480	250	40,0	202	119	364	378	378	392	392	392	392	395					
NHSD60-3523-8VKKU	535	300	45,6	216	119	419	433	433	447	447	447	447	450					
NHSD60-3963-8VKKU	590	300	51,4	230	119	474	488	488	502	502	502	502	505					
NHSD60-4363-8VKKU	640	350	56,1	244	119	524	538	538	552	552	552	552	555					
NHSD60-4932-8VKKU	740	350	63,8	270	119	587	606	606	626	626	626	602	629					
NHSD60-5572-8VKKU	820	400	72,2	290	119	667	686	686	706	706	706	706	709					

Technical Information on [telescopic cylinder](#)
 Technical Information on [stroke limitation](#)
 Release and limiting valve

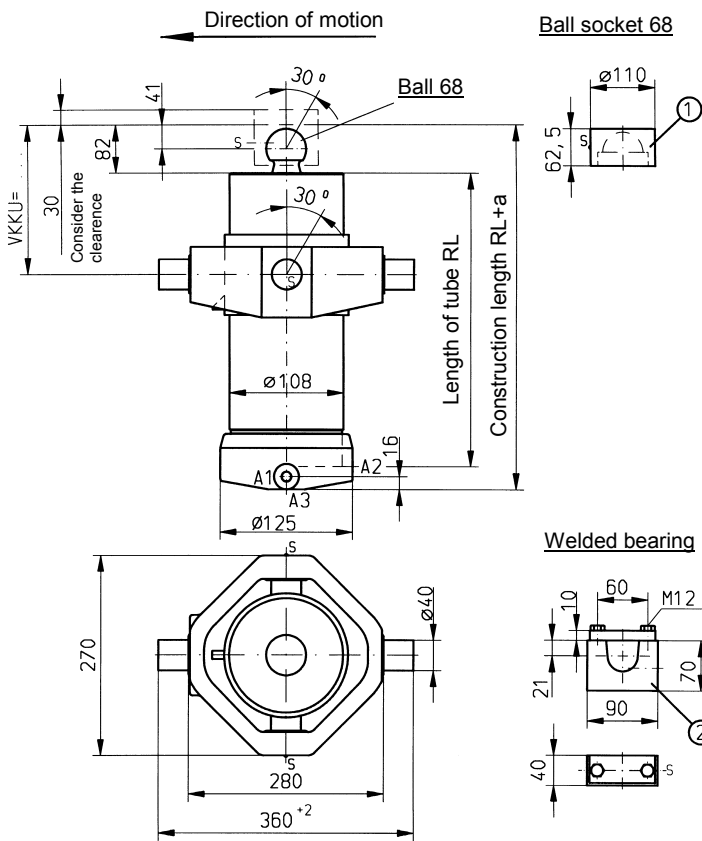
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Neumeister Hydraulik

NHSD60-...-8VKKU – B-10634

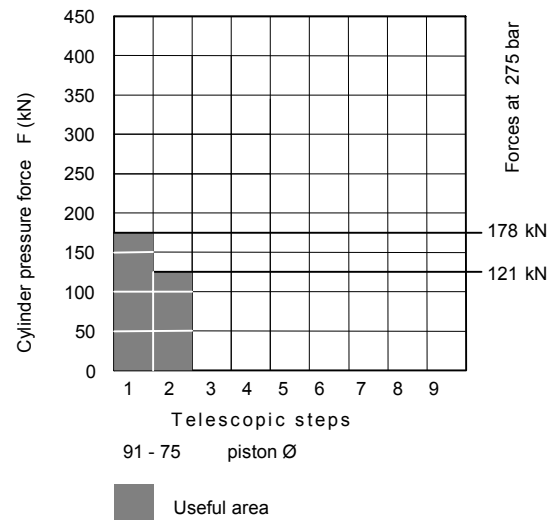
Tipping weight 120 kN (12 to)
Cylinder at centre of gravity, tipping angle 48°



Technical Data

Working pressure	max. 300 bar	
Number of telescopic steps	2	
Working temperature	-25°C - +80°C	
Carrying force ball 68	320 kN	
Carrying force cardan IV-2	200 kN	
VKKU-dimension \geq RL 290	min. 160; max. RL-30 Versions in 20 mm distances possible	
Release valve	VB16-2 IV-2	VB16-4 IV-2
Lubricating nipple	5 pieces, DIN 71412	
Standard connection	A1=	M22x1,5
Special connection	A2, A3=	M22x1,5

Load diagram



The following parts are to be ordered separately:

Pos	Piece	Denomination	Order Nr.	Weight
1	1	Ball socket 68	506-10003	2,3 kg
2	2	Welded bearing	508-10000	1,8 kg/pc

Types and dimensions

Subject to modifications	Type	Small piston Ø	Total stroke	Number of steps Cardan Ball head	RL mm	Norm VKKU	Volume dm ³	Weight kg	a mm	Stroke of the individual telescopic steps								
										1	2	3	4	5	6	7	8	9
										NHSD75- 404-2VKKU	290	180	2,2	42	112	202	202	
NHSD75- 484-2VKKU	330	180	2,6	45	112	242	242											
NHSD75- 544-2VKKU	360	200	2,9	47	112	272	272											
NHSD75- 664-2VKKU	420	200	3,6	51	112	332	332											
NHSD75- 784-2VKKU	480	220	4,2	54	112	392	392											
NHSD75- 894-2VKKU	535	250	4,8	58	112	447	447											
NHSD75-1004-2VKKU	590	270	5,4	61	112	502	502											
NHSD75-1104-2VKKU	640	300	6,0	65	112	552	552											

Technical Information on telescopic cylinder
Technical Information on stroke limitation
Release and limiting valve

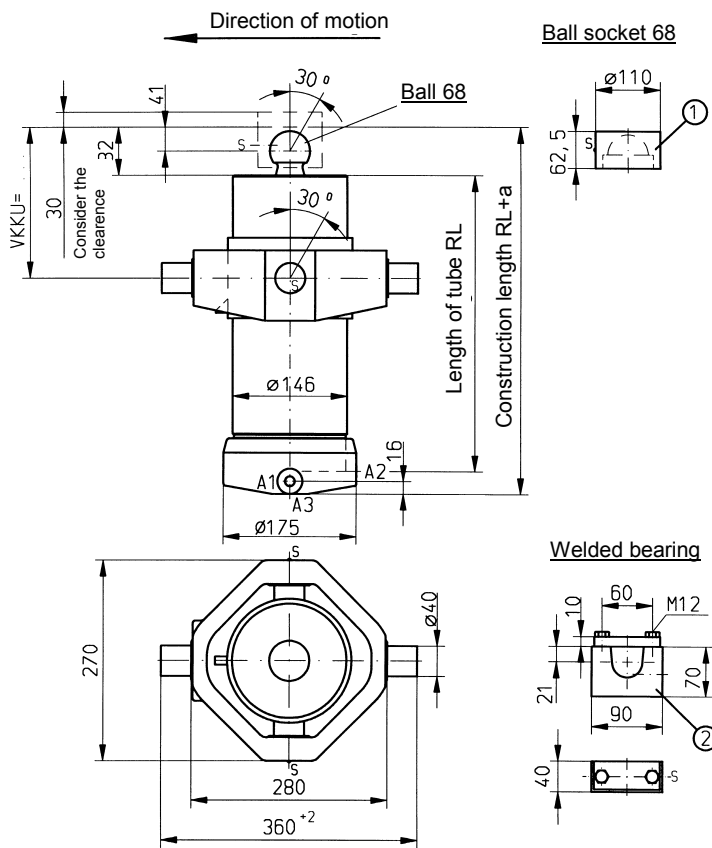
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Neumeister Hydraulik

Tipping weight 150 kN (15 to)

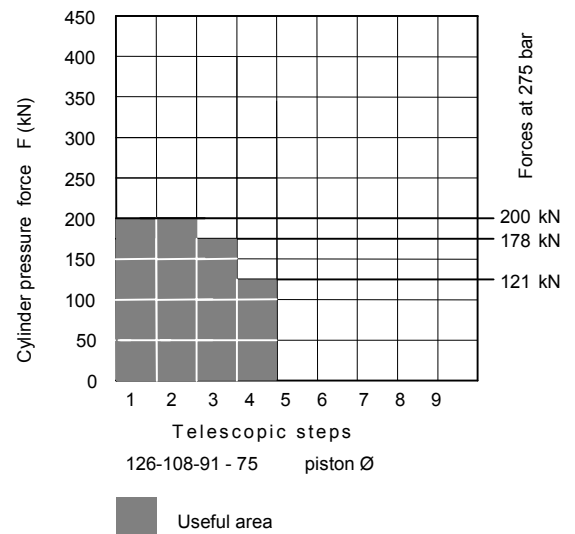
Cylinder at centre of gravity, tipping angle 48°



Technical Data

Working pressure	max. 300 bar	
Number of telescopic steps	4	
Working temperature	-25°C - +80°C	
Carrying force ball 68	320 kN	
Carrying force cardan IV-2	200 kN	
VKKU-dimension \geq RL 290	min. 160; max. RL-70 Versions in 20 mm distances possible	
Release valve	VB16-2 IV-2	VB16-4 IV-2
Lubricating nipple	5 pieces, DIN 71412	
Standard connection	A1=	M22x1,5
Special connection	A2, A3=	M22x1,5

Load diagram



The following parts are to be ordered separately:

Pos	Piece	Denomination	Order Nr.	Weight
1	1	Ball socket 68	506-10003	2,3 kg
2	2	Welded bearing	508-10000	1,8 kg/pc

Types and dimensions

Subject to modifications	Type	Small piston Ø	Total stroke	Number of steps Cardan Ball head	RL mm	Norm VKKU	Volume dm ³	Weight kg	a mm	Stroke of the individual telescopic steps								
										1	2	3	4	5	6	7	8	9
										NHSD75- 808-4VKKU	290	180	6,5	60	112	202	202	202
NHSD75- 968-4VKKU	330	180	7,8	65	112	242	242	242	242									
NHSD75-1088-4VKKU	360	200	8,8	69	112	272	272	272	272									
NHSD75-1328-4VKKU	420	200	10,7	75	112	332	332	332	332									
NHSD75-1568-4VKKU	480	220	12,7	81	112	392	392	392	392									
NHSD75-1788-4VKKU	535	250	14,5	87	112	447	447	447	447									
NHSD75-2008-4VKKU	590	270	16,3	93	112	502	502	502	502									
NHSD75-2208-4VKKU	640	300	18,0	99	112	552	552	552	552									
NHSD75-2504-4VKKU	740	350	20,3	110	112	626	626	626	626									
NHSD75-2824-4VKKU	820	400	22,9	119	112	706	706	706	706									
NHSD75-3144-4VKKU	900	450	25,5	128	112	786	786	786	786									

Technical Information on telescopic cylinder
 Technical Information on stroke limitation
 Release and limiting valve

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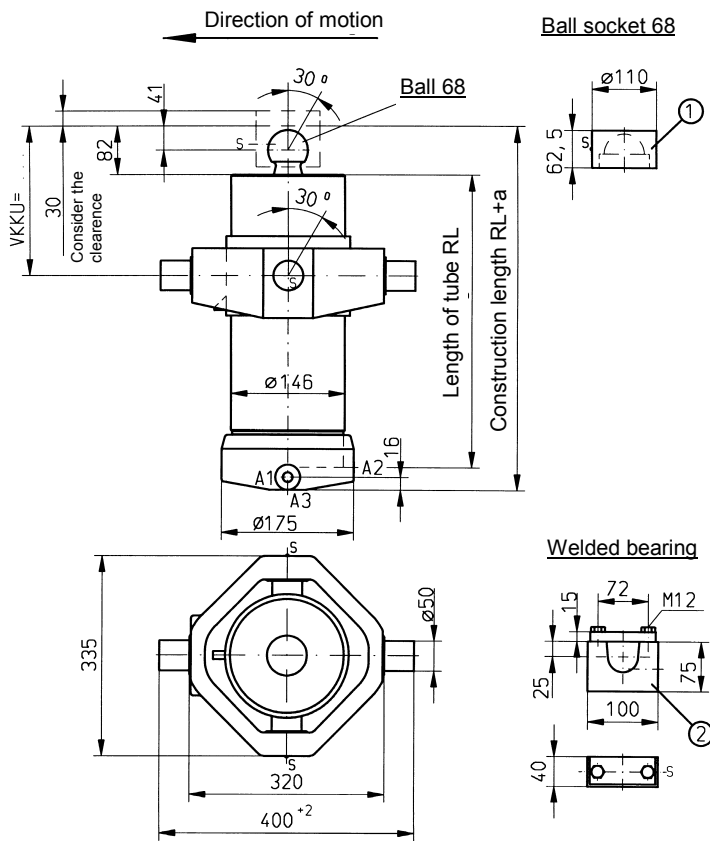


Neumeister Hydraulik

NHSD75-...-4VKKU – B-10622

Tipping weight 150 kN (15 to)

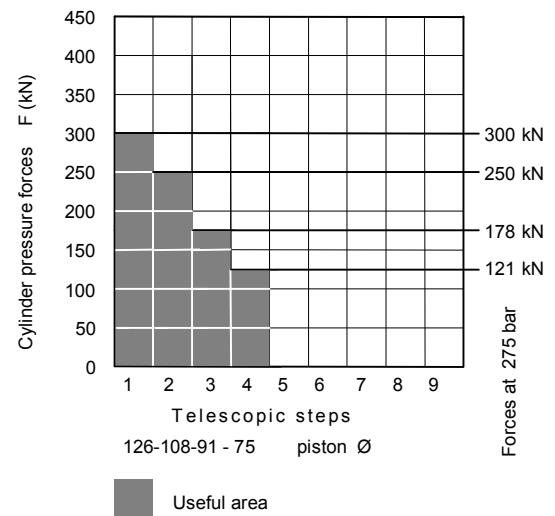
Cylinder at centre of gravity, tipping angle 48°



Technical data

Working pressure	max. 300 bar
Number of telescopic steps	4
Working temperature	-25°C - +80°C
Carrying force ball 68	320 kN
Carrying force cardan VI-1	300 kN
VKKU-dimension \geq RL 290	min. 160; max. RL-40 Versions in 20 mm distances possible
Release valve	VB16-2 VI-1 VB16-4 VI-1
Lubricating nipple	5 pieces, DIN 71412
Standard connection	A1= M22x1,5
Special connection	A2, A3= M22x1,5

Load diagram



The following parts are to be ordered separately:

Pos	Piece	Denomination	Order Nr.	Weight
1	1	Ball socket 68	506-10003	2,3 kg
2	2	Welded bearing	508-10001	2 kg/pc.

Types and dimensions

Type	Small piston Ø	Total stroke	Number of steps Cardan Ball head	RL mm	Norm VKKU	Volume dm ³	Weight kg	a mm	Stroke of the individual telescopic steps								
									1	2	3	4	5	6	7	8	9
									NHSD75- 808-4VKVIKU	290	180	6,5	68	112	202	202	202
NHSD75- 968-4VKVIKU	330	200	7,8	73	112	242	242	242	242								
NHSD75-1088-4VKVIKU	360	220	8,8	76	112	272	272	272	272								
NHSD75-1328-4VKVIKU	420	250	10,7	83	112	332	332	332	332								
NHSD75-1568-4VKVIKU	480	270	12,7	89	112	392	392	392	392								
NHSD75-1788-4VKVIKU	535	300	14,5	96	112	447	447	447	447								
NHSD75-2008-4VKVIKU	590	350	16,3	102	112	502	502	502	502								
NHSD75-2208-4VKVIKU	640	350	18,0	107	112	552	552	552	552								
NHSD75-2504-4VKVIKU	740	370	20,3	118	112	626	626	626	626								
NHSD75-2824-4VKVIKU	820	400	22,9	127	112	706	706	706	706								
NHSD75-3144-4VKVIKU	900	450	25,5	136	112	786	786	786	786								

Subject to modifications

Technical Information on [telescopic cylinder](#)
 Technical Information on [stroke limitation](#)
 Release and limiting valve

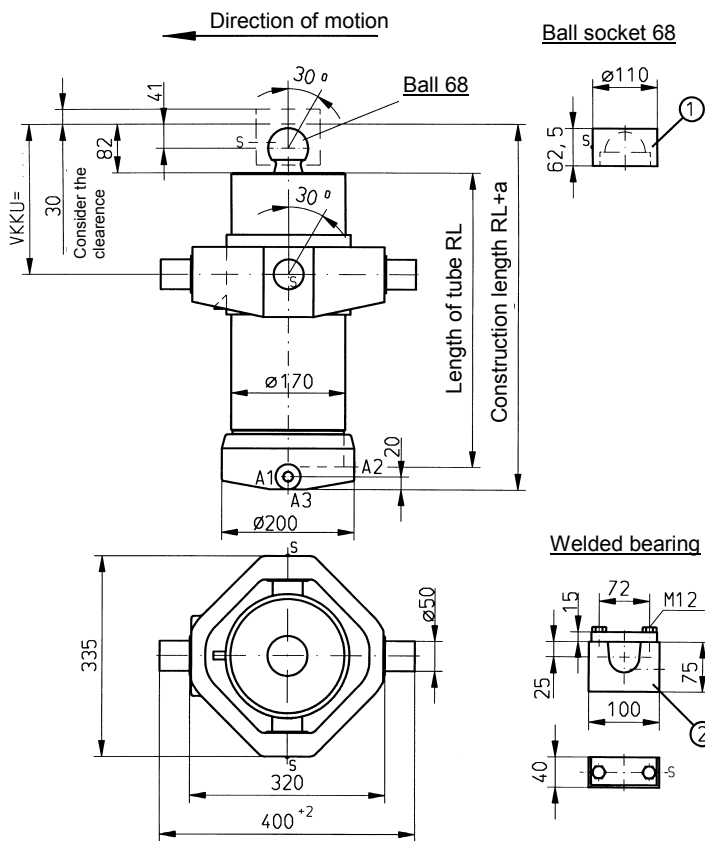
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Neumeister Hydraulik

Tipping weight 180 kN (18 to)

Cylinder at centre of gravity, tipping angle 48°



Technical Data

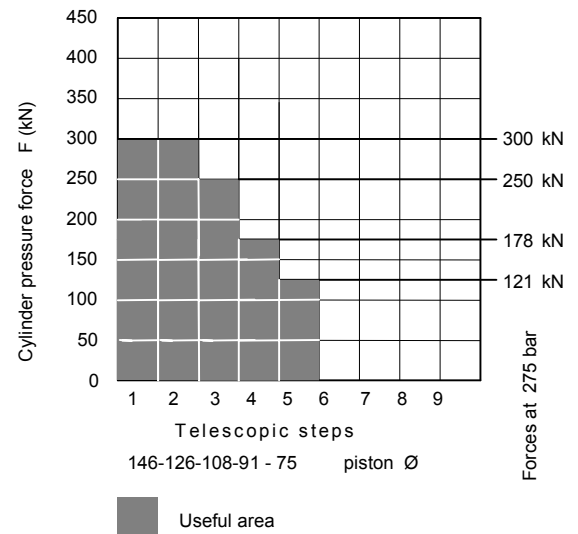
Working pressure max. 300 bar
 Number of telescopic steps 5
 Working temperature -25°C - +80°C
 Carrying force ball 68 320 kN
 Carrying force cardan VI-1 300 kN

VKKU-dimension \geq RL 290 min. 160; max. RL-50
 Versions in 20 mm distances possible

Release valve VB16-2 VI-1 VB16-4 VI-1

Lubricating nipple 5 pieces, DIN 71412
 Standard connection A1= M22x1,5
 Special connection A2, A3= M22x1,5

Load diagram



The following parts are to be ordered separately:

Pos	Piece	Denomination	Order Nr.	Weight
1	1	Ball socket 68	506-10003	2,3 kg
2	2	Welded bearing	508-10001	2 kg/pc

Types and dimensions

Type	Small piston Ø	Total stroke	Number of steps Cardan Ball head	RL mm	Norm VKKU	Volume dm ³	Weight kg	a mm	Stroke of the individual telescopic steps									
									1	2	3	4	5	6	7	8	9	
NHSD75- 996-5VKKU				290	180	9,7	85	117	188	202	202	202	202					
NHSD75-1196-5VKKU				330	200	11,6	91	117	228	242	242	242	242					
NHSD75-1346-5VKKU				360	220	13,1	96	117	258	272	272	272	272					
NHSD75-1646-5VKKU				420	250	16,1	105	117	318	332	332	332	332					
NHSD75-1946-5VKKU				480	270	19,7	114	117	378	392	392	392	392					
NHSD75-2221-5VKKU				535	300	21,7	122	117	433	447	447	447	447					
NHSD75-2496-5VKKU				590	330	24,4	130	117	488	502	502	502	502					
NHSD75-2746-5VKKU				640	350	26,9	137	117	538	552	552	552	552					
NHSD75-3110-5VKKU				740	370	30,5	152	117	606	626	626	626	626					
NHSD75-3510-5VKKU				820	400	34,4	164	117	686	706	706	706	706					
NHSD75-3910-5VKKU				900	450	38,3	176	117	766	786	786	786	786					

Subject to modifications

Technical Information on telescopic cylinder
 Technical Information on stroke limitation
 Release and limiting valve

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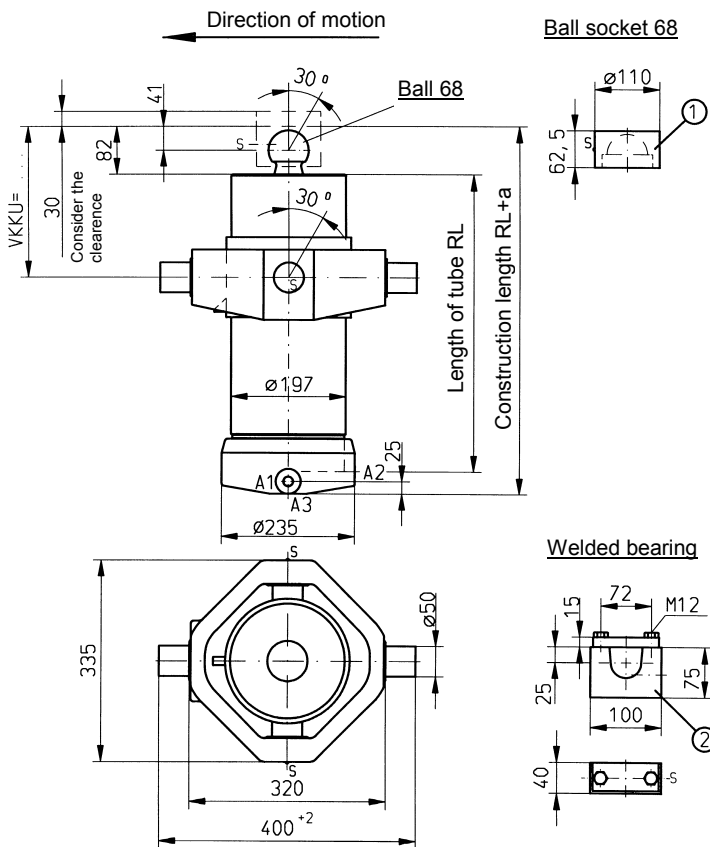


Neumeister Hydraulik

NHSD75-...-5VKKU – B-09924

Tipping weight 215 kN (21,5 to)

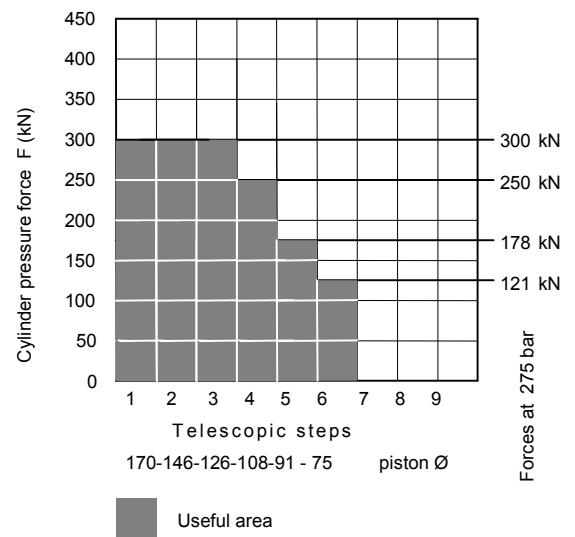
Cylinder at centre of gravity, tipping angle 48°



Technical Data

Working pressure	max. 300 bar
Number of telescopic steps	6
Working temperature	-25°C - +80°C
Carrying force ball 68	320 kN
Carrying force cardan VI-1	300 kN
VKKU-dimension \geq RL 290	min. 160; max. RL-110 Versions in 20 mm distances possible
Release valve	VB16-2 VI-1 VB16-4 VI-1
Lubricating nipple	5 piece, DIN 71412
Standard connection	A1= M27x2 (M33x2)
Special connection	A2, A3= M27x2 (M33x2)

Load diagram



The following parts are to be ordered separately:

Pos	Piece	Denomination	Order No.	Weight
1	1	Ball socket 68	506-10003	2,3 kg
2	2	Welded bearing	508-10001	2 kg/pc

Types and dimensions

Subject to modifications	Type	Small piston Ø	Total stroke	Number of steps Cardan Ball head	RL mm	Norm VKKU	Volume dm ³	Weight kg	a mm	Stroke of the individual telescopic steps								
										1	2	3	4	5	6	7	8	9
										NHSD75-1184-6VKKU	290	180	13,9	115	122	188	188	202
NHSD75-1424-6VKKU	330	200	16,8	123	122	228	228	242	242	242	242							
NHSD75-1604-6VKKU	360	220	19,0	129	122	258	258	272	272	272	272							
NHSD75-1964-6VKKU	420	250	23,3	141	122	318	318	332	332	332	332							
NHSD75-2324-6VKKU	480	270	27,6	153	122	378	378	392	392	392	392							
NHSD75-2654-6VKKU	535	300	31,6	164	122	433	433	447	447	447	447							
NHSD75-2984-6VKKU	590	330	35,5	175	122	488	488	502	502	502	502							
NHSD75-3284-6VKKU	640	350	39,1	185	122	538	538	552	552	552	552							
NHSD75-3716-6VKKU	740	370	44,2	204	122	606	606	626	626	626	626							
NHSD75-4196-6VKKU	820	400	50,0	220	122	686	686	706	706	706	706							
NHSD75-4676-6VKKU	900	450	55,7	236	122	766	766	786	786	786	786							

Technical Information on telescopic cylinder
 Technical Information on stroke limitation
 Release and limiting valve

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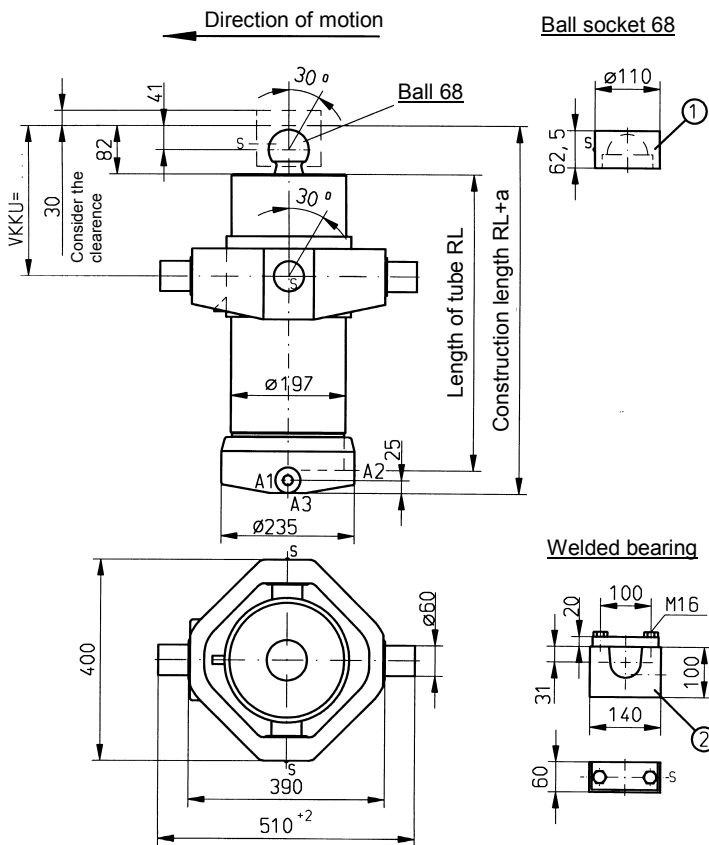


Neumeister Hydraulik

NHSD75-...-6VKKU – B-10525

Tipping weight 215 kN (21,5 to)

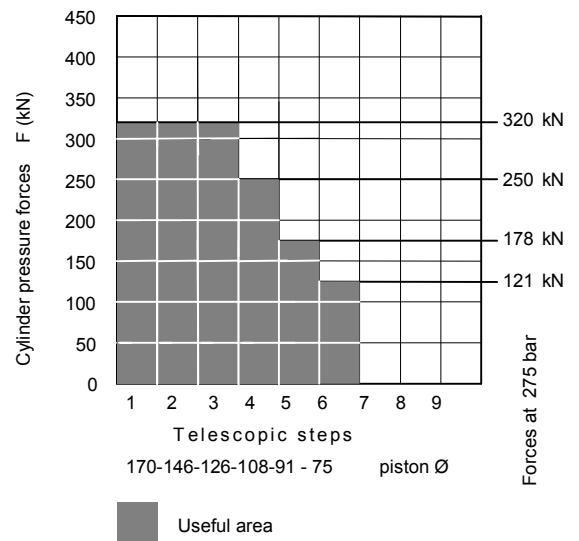
Cylinder at centre of gravity, tipping angle 48°



Technical data

Working pressure	max. 300 bar
Number of telescopic steps	6
Working temperature	-25°C - +80°C
Carrying force ball 68	320 kN
Carrying force cardan VI-3	400 kN
VKKU dimension \geq RL 290	min. 200; max. RL-90 Versions in 20 mm distances possible
Release valve	VB16-2 VI-3 VB16-4 VI-3 VB20-1 VI-3 VB20-4 VI-3
Lubricating nipple	5 pieces, DIN 71412
Standard connection	A1= M27x2 (M33x2)
Special connection	A2, A3= M27x2 (M33x2)

Load diagram



The following parts are to be ordered separately:

Pos	Piece	Denomination	Order Nr.	Weight
1	1	Ball socket 68	506-10003	2,3 kg
2	2	Welded bearing	508-10002	6 kg/pc.

Typen und Abmessungen

Subject to modifications

Type	Small piston Ø	Total stroke	Number of steps Cardan Ball head	RL mm	Norm VKKU	Volume dm ³	Weight kg	a mm	Stroke of the individual telescopic steps										
									1	2	3	4	5	6	7	8	9		
NHSD75-1184-6VKVIKU				290		13,9	129	122	188	188	202	202	202	202					
NHSD75-1424-6VKVIKU				330		16,8	137	122	228	228	242	242	242	242					
NHSD75-1604-6VKVIKU				360		19,0	143	122	258	258	272	272	272	272					
NHSD75-1964-6VKVIKU				420		23,3	155	122	318	318	332	332	332	332					
NHSD75-2324-6VKVIKU				480		27,6	167	122	378	378	392	392	392	392					
NHSD75-2654-6VKVIKU				535		31,6	178	122	433	433	447	447	447	447					
NHSD75-2984-6VKVIKU				590		35,5	189	122	488	488	502	502	502	502					
NHSD75-3284-6VKVIKU				640		39,1	199	122	538	538	552	552	552	552					
NHSD75-3716-6VKVIKU				740		44,2	218	122	606	606	626	626	626	626					
NHSD75-4196-6VKVIKU				820		50,0	234	122	686	686	706	706	706	706					
NHSD75-4676-6VKVIKU				900		55,7	250	122	766	766	786	786	786	786					

Technical Information on telescopic cylinder
 Technical Information on stroke limitation
 Release and limiting valve

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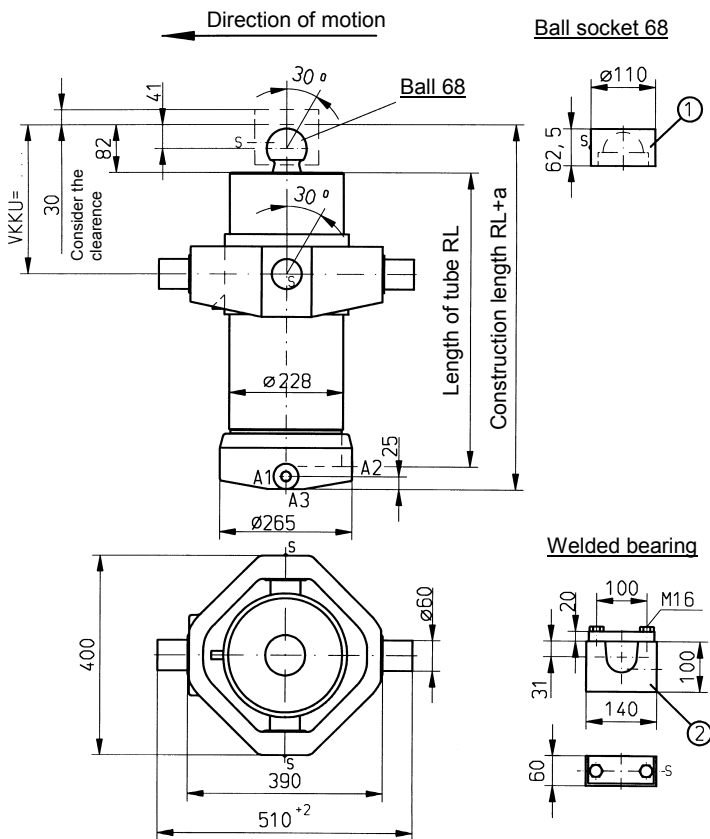


Neumeister Hydraulik

NHSD75-...-6VKVIKU – B-09926

Tipping weight 250 kN (25 to)

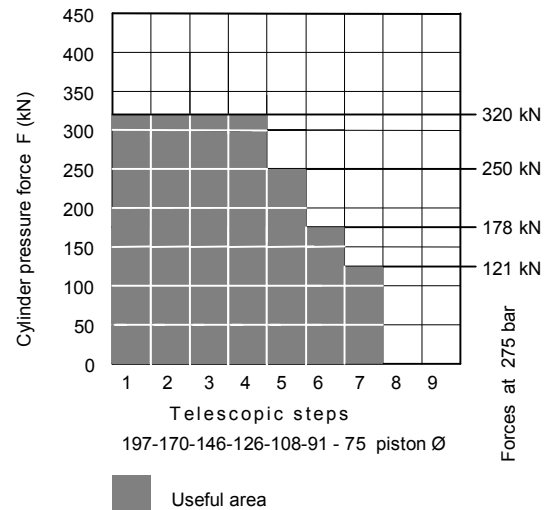
Cylinder at centre of gravity, tipping angle 48°



Technical Data

Working pressure	max. 300 bar
Number of telescopic steps	7
Working temperature	-25°C - +80°C
Carrying force ball 68	320 kN
Carrying force cardan VI-3	400 kN
VKKU-dimension RL 290	200; <i>only with rework!</i>
VKKU-dimension ≥ RL 330	min. 200; max. RL-130
	Versions in 20 mm distances possible
Release valve	VB16-2 VI-3 VB16-4 VI-3 VB20-1 VI-3 VB20-4 VI-3
Lubricating nipple	5 pieces, DIN 71412
Standard connection	A1= M27x2 (M33x2)
Special connection	A2, A3= M27x2 (M33x2)

Load diagram



The following parts are to be ordered separately:

Pos	Piece	Denomination	Order Nr.	Weight
1	1	Ball socket 68	506-10003	2,3 kg
2	2	Welded bearing	508-10003	6 kg/pc

Types and dimensions

Type	Small piston Ø	Total stroke	Number of steps Cardan Ball head	RL mm	Norm VKKU	Volume dm ³	Weight kg	a mm	Stroke of the individual telescopic steps								
									1	2	3	4	5	6	7	8	9
									NHSD75-1358-7VKKU	290	200	19,2	153	127	174	188	188
NHSD75-1638-7VKKU	330	200	23,2	164	127	214	228	228	242	242	242	242					
NHSD75-1848-7VKKU	360	230	26,4	172	127	244	258	258	272	272	272	272					
NHSD75-2268-7VKKU	420	270	32,6	188	127	304	318	318	332	332	332	332					
NHSD75-2688-7VKKU	480	300	38,7	204	127	364	378	378	392	392	392	392					
NHSD75-3073-7VKKU	535	300	44,3	218	127	419	433	433	447	447	447	447					
NHSD75-3458-7VKKU	590	330	50,0	233	127	474	488	488	502	502	502	502					
NHSD75-3808-7VKKU	640	350	55,1	246	127	524	538	538	552	552	552	552					
NHSD75-4303-7VKKU	740	370	62,1	273	127	587	606	606	626	626	626	626					
NHSD75-4863-7VKKU	820	400	70,3	294	127	667	686	686	706	706	706	706					
NHSD75-5423-7VKKU	900	450	78,5	315	127	747	766	766	786	786	786	786					

Subject to modifications

Technical Information on telescopic cylinder
 Technical Information on stroke limitation
 Release and limiting valve

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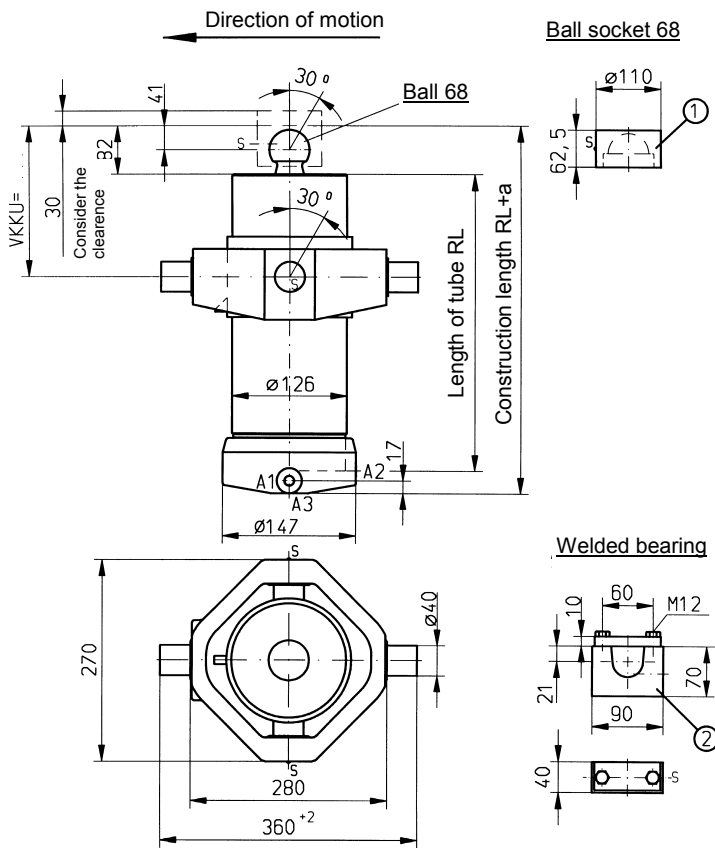


Neumeister Hydraulik

NHSD75-...-7VKKU – B-09927

Tipping weight 180 kN (18 to)

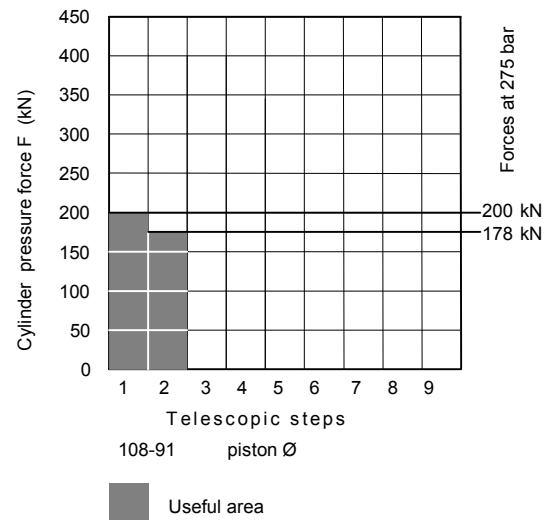
Cylinder at centre of gravity, tipping angle 48°



Technical Data

Working pressure	max. 300 bar	
Number of telescopic steps	2	
Working temperature	-25°C - +80°C	
Carrying force ball 68	320 kN	
Carrying force cardan IV-2	200 kN	
VKKU-dimension \geq RL 290	min. 160; max. RL-30 Versions in 20 mm distances possible	
Release valve	VB16-2 IV-2	VB16-4 IV-2
Lubricating nipple	5 pieces, DIN 71412	
Standard connection	A1=	M22x1,5
Special connection	A2, A3=	M22x1,5

Load diagram



The following parts are to be ordered separately:

Pos	Piece	Denomination	Order Nr.	Weight
1	1	Ball socket 68	506-10003	2,3 kg
2	2	Welded bearing	508-10000	1,8 kg/pc

Types and dimensions

Type	Small piston Ø	Total stroke	Number of steps Cardan Ball head	RL mm	Norm VKKU	Volume dm ³	Weight kg	a mm	Stroke of the individual telescopic steps									
									1	2	3	4	5	6	7	8	9	
NHSD91- 404-2VKKU				290	180	3,1	53	113	202	202								
NHSD91- 484-2VKKU				330	180	3,7	56	113	242	242								
NHSD91- 544-2VKKU				360	200	4,2	59	113	272	272								
NHSD91- 664-2VKKU				420	220	5,1	64	113	332	332								
NHSD91- 784-2VKKU				480	240	6,1	70	113	392	392								
NHSD91- 894-2VKKU				535	250	6,9	74	113	447	447								
NHSD91-1004-2VKKU				590	270	7,8	79	113	502	502								
NHSD91-1104-2VKKU				640	270	8,6	84	113	552	552								

Subject to modifications

Technical Information on telescopic cylinder
 Technical Information on stroke limitation
 Release and limiting valve

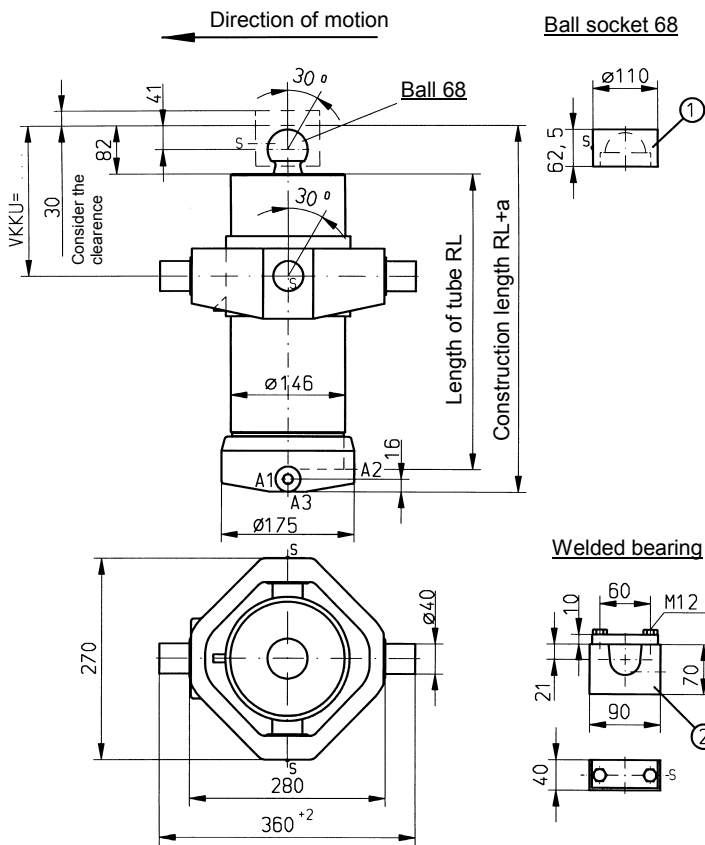
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Neumeister Hydraulik

NHSD91-...-2VKKU – B-10623

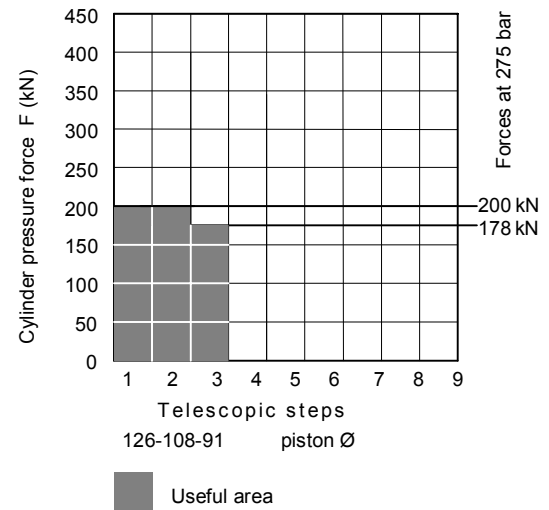
Tipping weight 180 kN (18 to)
 Cylinder at centre of gravity, tipping angle 48°



Technical Data

Working pressure	max. 300 bar	
Number of telescopic steps	3	
Working temperature	-25°C - +80°C	
Carrying force ball 68	320 kN	
Carrying force cardan IV-2	200 kN	
VKKU-dimension \geq RL 290	min. 160; max. RL-70 Versions in 20 mm distances possible	
Release valve	VB16-2 IV-2	VB16-4 IV-2
Lubricating nipple	5 pieces, DIN 71412	
Standard connection	A1=	M22x1,5
Special connection	A2, A3=	M22x1,5

Load diagram



The following parts are to be ordered separately:

Pos	Piece	Denomination	Order Nr.	Weight
1	1	Ball socket 68	506-10003	2,3 kg
2	2	Welded bearing	508-10000	1,8 kg/pc

Types and dimensions

Type	Small piston Ø	Total stroke	Number of steps cardan Ball head	RL mm	Norm VKKU	Volume dm ³	Weight kg	a mm	Stroke of the individual telescopic steps								
									1	2	3	4	5	6	7	8	9
									NHSD91- 606-3VKKU	290	180	5,6	61	112	202	202	202
NHSD91- 726-3VKKU	330	180	6,8	66	112	242	242	242									
NHSD91- 816-3VKKU	360	200	7,6	74	112	272	272	272									
NHSD91- 996-3VKKU	420	220	9,2	79	112	332	332	332									
NHSD91-1176-3VKKU	480	240	11,0	85	112	392	392	392									
NHSD91-1341-3VKKU	535	250	12,4	91	112	447	447	447									
NHSD91-1506-3VKKU	590	270	13,9	97	112	502	502	502									
NHSD91-1656-3VKKU	640	270	15,5	103	112	552	552	552									
NHSD91-1878-3VKKU	740	370	17,2	113	112	626	626	626									
NHSD91-2118-3VKKU	820	400	19,8	122	112	706	706	706									
NHSD91-2358-3VKKU	900	450	22,1	131	112	786	786	786									
NHSD91-2658-3VKKU	1000	450	24,9	143	112	886	886	886									

Subject to modifications

Technical Information on telescopic cylinder
 Technical Information on stroke limitation
 Release and limiting valve

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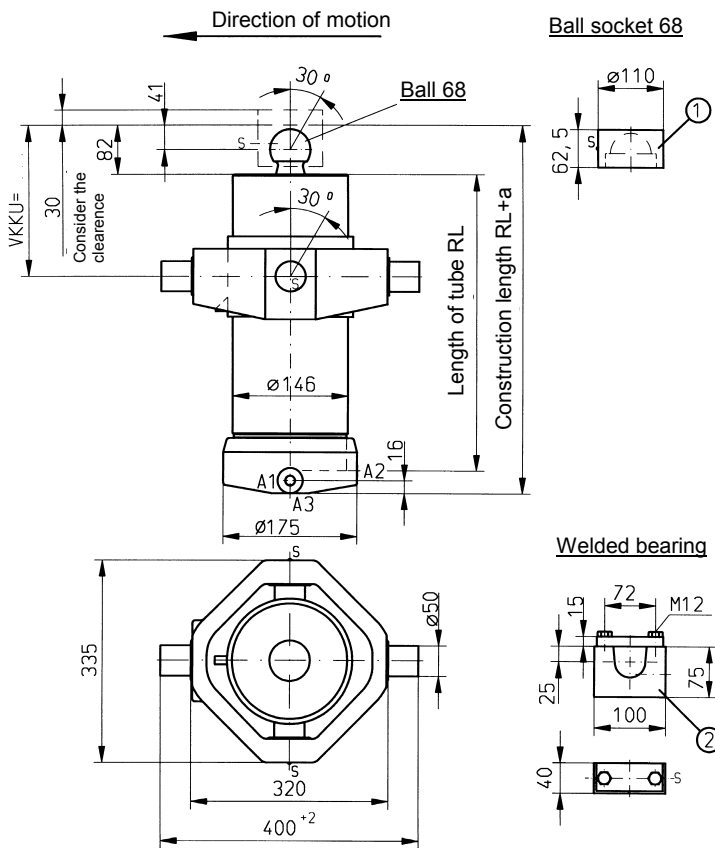


Neumeister Hydraulik

NHSD91-...-3VKKU – B-10382

Tipping weight 180 kN (18 to)

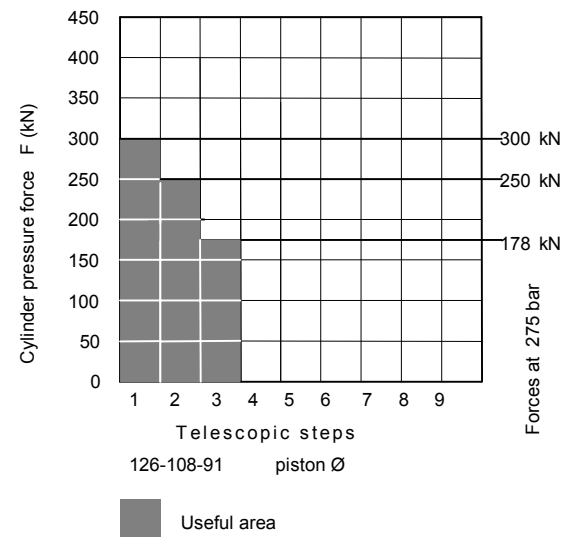
Cylinder at centre of gravity, tipping angle 48°



Technical data

Working pressure	max. 300 bar	
Number of telescopic steps	3	
Working temperature	-25°C - +80°C	
Carrying force ball 68	320 kN	
Carrying force cardan VI-1	300 kN	
VKKU-dimension \geq RL 330	min. 160; max. RL-40 Versions in 20 mm distances possible	
Release valve	VB16-2 VI-1	VB16-4 VI-1
Lubricating nipple	5 pieces, DIN 71412	
Standard connection	A1=	M22x1,5
Special connection	A2, A3=	M22x1,5

Load diagram



The following parts are to be ordered separately:

Pos	Piece	Denomination	Order Nr.	Weight
1	1	Ball socket 68	506-10003	2,3 kg
2	2	Welded bearing	508-10001	2 kg/pc.

Types and dimensions

Subject to modifications	Type	Small piston Ø	Total stroke	Number of steps Cardan Ball head	RL mm	Norm VKKU	Volume dm ³	Weight kg	a mm	Stroke of the individual telescopic steps								
										1	2	3	4	5	6	7	8	9
										NHSD91- 726-3VKVIKU	330	200	6,8	74	112	242	242	242
NHSD91- 816-3VKVIKU	360	220	7,6	78	112	272	272	272										
NHSD91- 996-3VKVIKU	420	250	9,2	84	112	332	332	332										
NHSD91-1176-3VKVIKU	480	250	11,0	91	112	392	392	392										
NHSD91-1341-3VKVIKU	535	270	12,4	98	112	447	447	447										
NHSD91-1506-3VKVIKU	590	270	13,9	104	112	502	502	502										
NHSD91-1656-3VKVIKU	640	300	15,5	110	112	552	552	552										
NHSD91-1878-3VKVIKU	740	370	17,2	121	112	626	626	626										
NHSD91-2118-3VKVIKU	820	400	19,8	130	112	706	706	706										
NHSD91-2358-3VKVIKU	900	450	22,1	140	112	786	786	786										
NHSD91-2658-3VKVIKU	1000	450	24,9	151	112	886	886	886										

Technical Information on [telescopic cylinder](#)
 Technical Information on [stroke limitation](#)
 Release and limiting valve

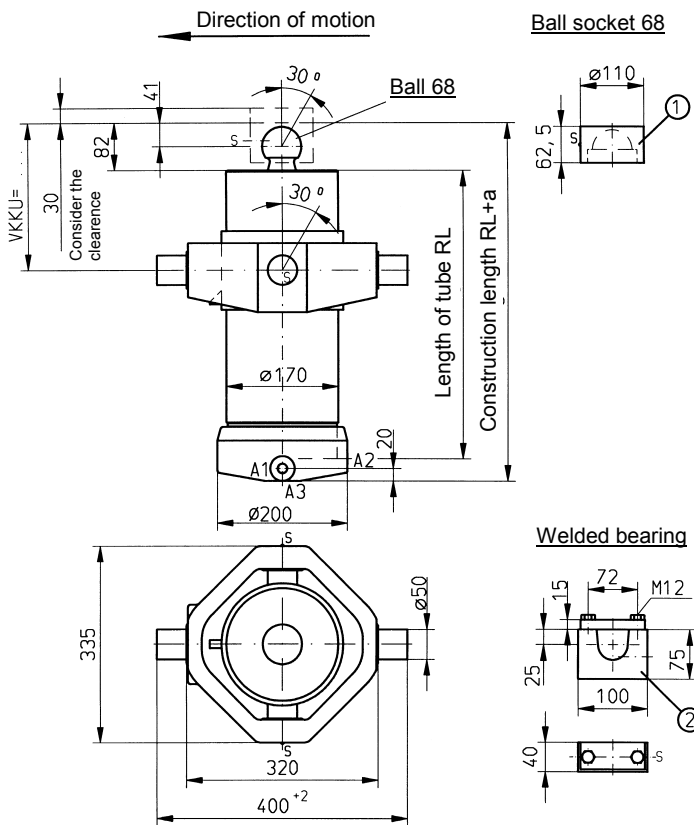
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Neumeister Hydraulik

Tipping weight 215 kN (21,5 to)

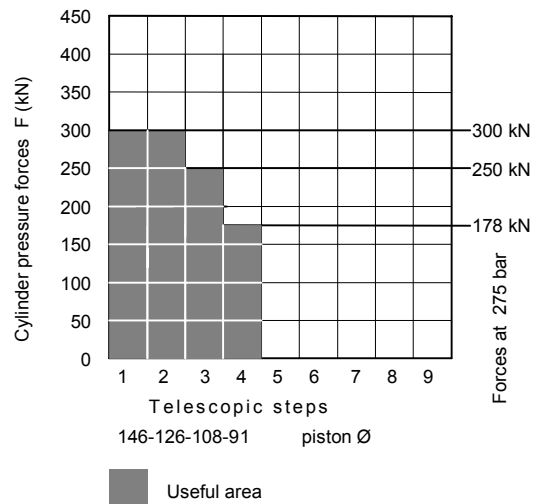
Cylinder at centre of gravity, tipping angle 48°



Technical Data

Working pressure	max. 300 bar
Number of telescopic steps	4
Working temperature	-25°C - +80°C
Carrying force ball 68	320 kN
Carrying force cardan VI-1	300 kN
VKKU-dimension \geq RL 290	min. 160; max. RL-50 Versions in 20 mm distances possible
Release valve	VB16-2 VI-1 VB16-4 VI-1
Lubricating nipple	5 pieces, DIN 71412
Standard connection	A1= M22x1,5
Special connection	A2, A3= M22x1,5

Load diagram



The following parts are to be ordered separately:

Pos	Piece	Denomination	Order Nr.	Weight
1	1	Ball socket 68	506-10003	2,3 kg
2	2	Welded bearing	508-10001	2 kg/pc.

Types and dimensions

Type	Small piston Ø	Total stroke	Number of steps	Cardan	Ball head	RL mm	Norm VKKU	Volume dm ³	Weight kg	a mm	Stroke of the individual telescopic steps							
											1	2	3	4	5	6	7	8
NHSD91- 794-4VKKU						290	180	8,7	88	117	188	202	202	202				
NHSD91- 954-4VKKU						330	200	10,6	93	117	228	242	242	242				
NHSD91-1074-4VKKU						360	220	11,9	97	117	258	272	272	272				
NHSD91-1314-4VKKU						420	250	14,6	106	117	318	332	332	332				
NHSD91-1554-4VKKU						480	250	17,3	115	117	378	392	392	392				
NHSD91-1774-4VKKU						535	270	19,8	124	117	433	447	447	447				
NHSD91-1994-4VKKU						590	270	22,2	132	117	488	502	502	502				
NHSD91-2194-4VKKU						640	300	24,5	139	117	538	552	552	552				
NHSD91-2484-4VKKU						740	370	27,7	155	117	606	626	626	626				
NHSD91-2804-4VKKU						820	400	31,3	167	117	686	706	706	706				
NHSD91-3124-4VKKU						900	450	34,9	179	117	766	786	786	786				
NHSD91-3524-4VKKU						1000	450	39,7	195	117	866	886	886	886				

Subject to modifications

Technical Information on [telescopic cylinder](#)
 Technical Information on [stroke limitation](#)
 Release and limiting valve

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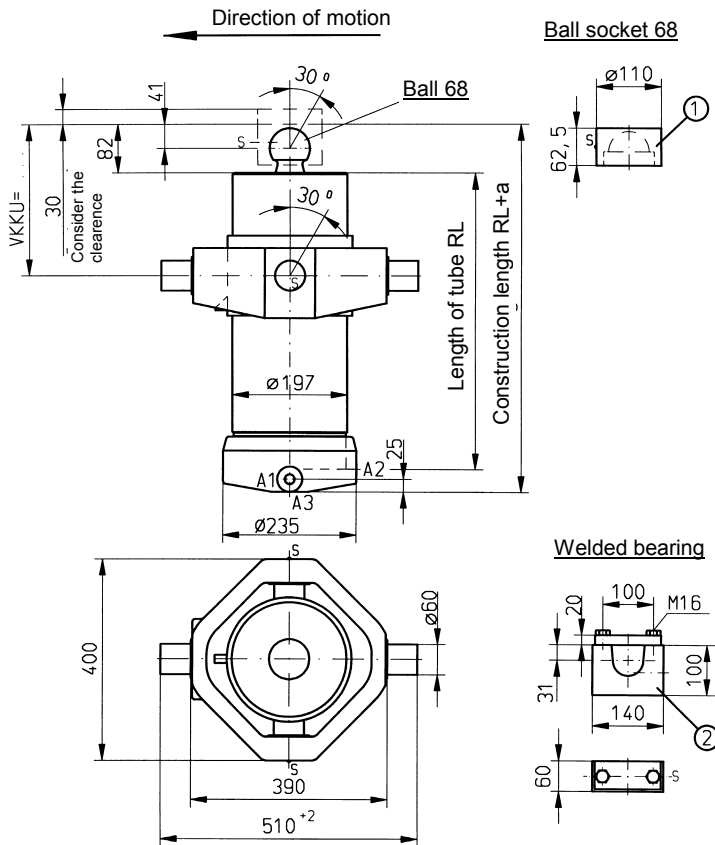


Neumeister Hydraulik

NHSD91-...-4VKKU – B-09879

Tipping weight 250 kN (25 to)

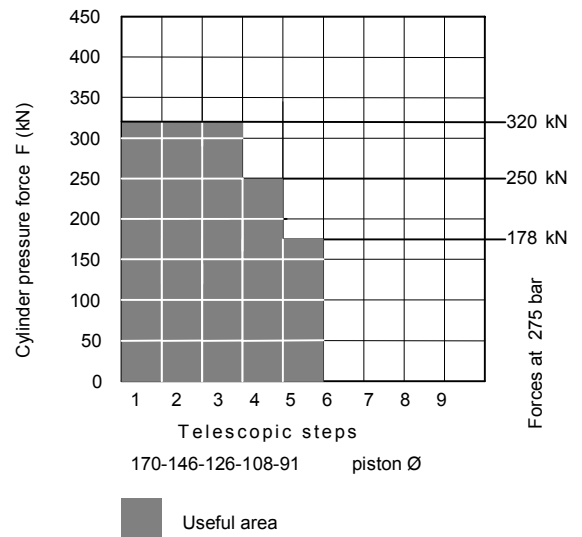
Cylinder at centre of gravity, tipping angle 48°



Technical Data

Working pressure	max. 300 bar
Number of telescopic steps	5
Working temperature	-25°C - +80°C
Carrying force ball 68	320 kN
Carrying force cardan VI-3	400 kN
VKKU-dimension \geq RL 360	min. 200; max. RL-90
	Versions in 20 mm distances possible
Release valve	VB16-2 VI-3 VB16-4 VI-3 VB20-1 VI-3 VB20-4 VI-3
Lubricating nipple	5 pieces, DIN 71412
Standard connection	A1= M27x2 (M33x2)
Special connection	A2, A3= M27x2 (M33x2)

Load diagram



The following parts are to be ordered separately:

Pos	Piece	Denomination	Order Nr.	Weight
1	1	Ball socket 68	506-10003	2,3 kg
2	2	Welded bearing	508-10002	6 kg/pc

Types and dimensions

Subject to modifications	Type	Small piston Ø	Total stroke	Number of steps	Cardan	Ball head	RL mm	Norm VKKU	Volume dm ³	Weight kg	a mm	Stroke of the individual telescopic steps								
												1	2	3	4	5	6	7	8	9
												NHSD91-1332-5VKKU	360	220	17,8	144	122	258	258	272
NHSD91-1632-5VKKU	420	250	21,8	156	122	318	318	332	332	332										
NHSD91-1932-5VKKU	480	270	25,9	169	122	378	378	392	392	392										
NHSD91-2207-5VKKU	535	300	29,6	180	122	433	433	447	447	447										
NHSD91-2482-5VKKU	590	300	32,9	191	122	488	488	502	502	502										
NHSD91-2732-5VKKU	640	350	36,7	201	122	538	538	552	552	552										
NHSD91-3090-5VKKU	740	400	41,4	221	122	606	606	626	626	626										
NHSD91-3490-5VKKU	820	450	46,8	238	122	686	686	706	706	706										
NHSD91-3890-5VKKU	900	450	52,3	254	122	766	766	786	786	786										
NHSD91-4390-5VKKU	1000	450	59,0	274	122	866	866	886	886	886										

Technical Information on telescopic cylinder
 Technical Information on stroke limitation
 Release and limiting valve

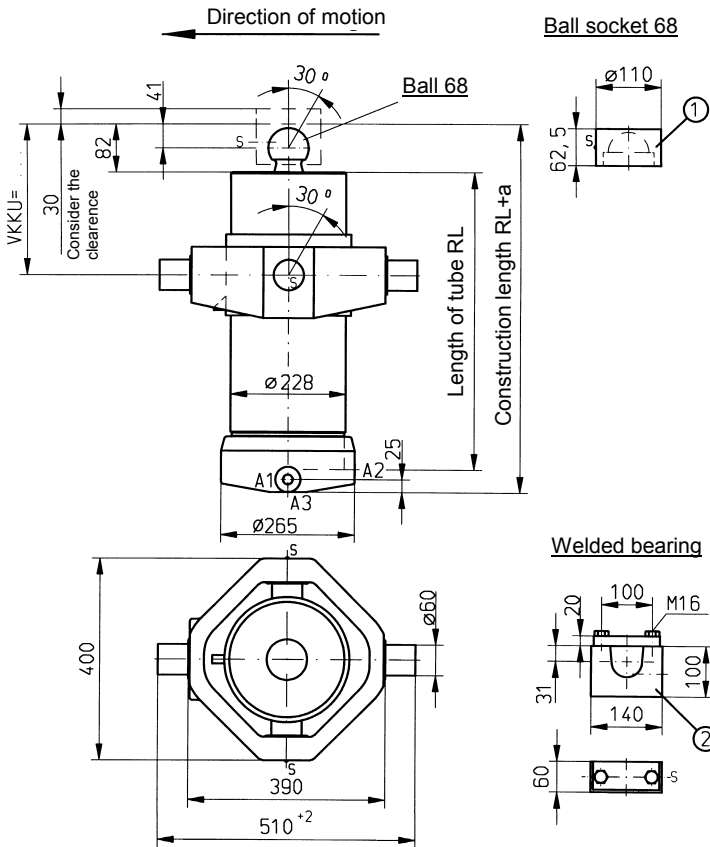
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Neumeister Hydraulik

Tipping weight 300 kN (30 to)

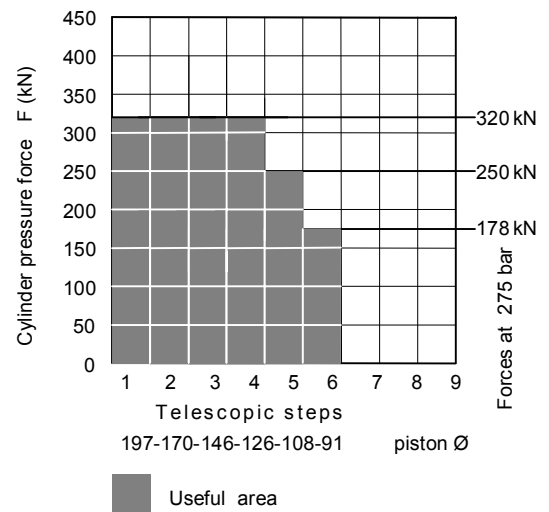
Cylinder at centre of gravity, tipping angle 48°



Technical Data

Working pressure	max. 300 bar
Number of telescopic steps	6
Working temperature	-25°C - +80°C
Carrying force ball 68	320 kN
Carrying force cardan VI-3	400 kN
VKKU-dimension \geq RL 360	min. 200; max. RL-130 Versions in 20 mm distances possible
Release valve	VB16-2 VI-3 VB16-4 VI-3 VB20-1 VI-3 VB20-4 VI-3
Lubricating nipple	5 pieces, DIN 71412
Standard connection	A1= M27x2 (M33x2)
Special connection	A2, A3= M27x2 (M33x2)

Load diagram



The following parts are to be ordered separately:

Pos	Piece	Denomination	Order Nr.	Weight
1	1	Ball socket 68	506-10003	2,3 kg
2	2	Welded bearing	508-10002	6 kg/pc.

Types and dimensions

Type	Small piston Ø	Total stroke	Number of steps Cardan Ball head	RL mm	Norm VKKU	Volume dm ³	Weight kg	a mm	Stroke of the individual telescopic steps										
									1	2	3	4	5	6	7	8	9		
NHSD91-1576-6VKKU				360	220	25,2	173	127	244	258	258	272	272	272					
NHSD91-1936-6VKKU				420	250	31,3	189	127	304	318	318	332	332	332					
NHSD91-2296-6VKKU				480	270	37,0	205	127	364	378	378	392	392	392					
NHSD91-2626-6VKKU				535	300	42,4	220	127	419	433	433	447	447	447					
NHSD91-2956-6VKKU				590	300	47,4	235	127	474	488	488	502	502	502					
NHSD91-3256-6VKKU				640	350	52,7	249	127	524	538	538	552	552	552					
NHSD91-3677-6VKKU				740	400	59,3	275	127	587	606	606	626	626	626					
NHSD91-4157-6VKKU				820	450	67,2	397	127	667	686	686	706	706	706					
NHSD91-4637-6VKKU				900	450	75,0	319	127	747	766	766	786	786	786					
NHSD91-5237-6VKKU				1000	450	84,3	345	127	947	866	866	886	886	886					

Subject to modifications

Technical Information on telescopic cylinder
 Technical Information on stroke limitation
 Release and limiting valve

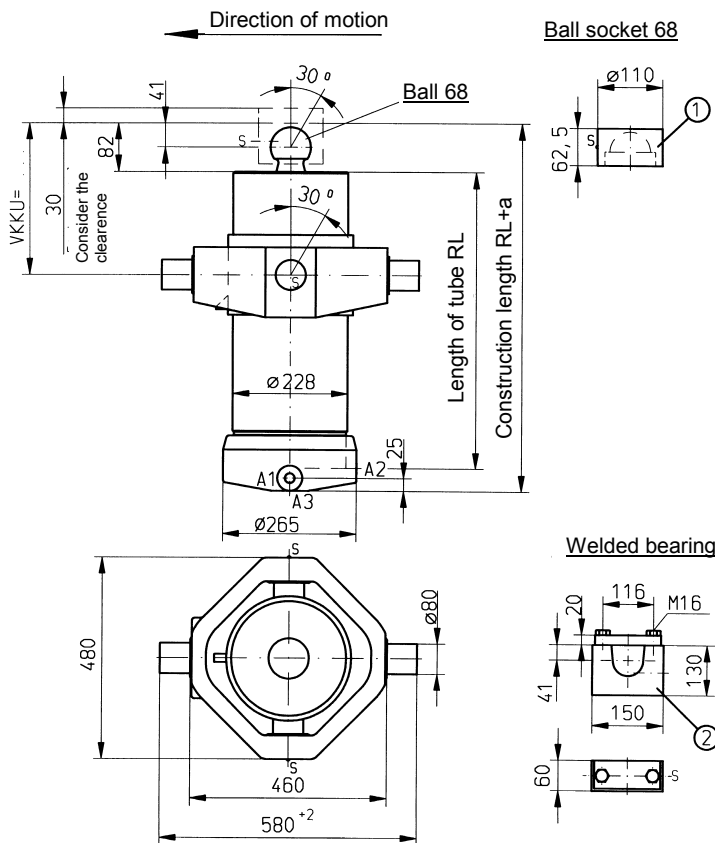
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Neumeister Hydraulik

Tipping weight 300 kN (30 to)

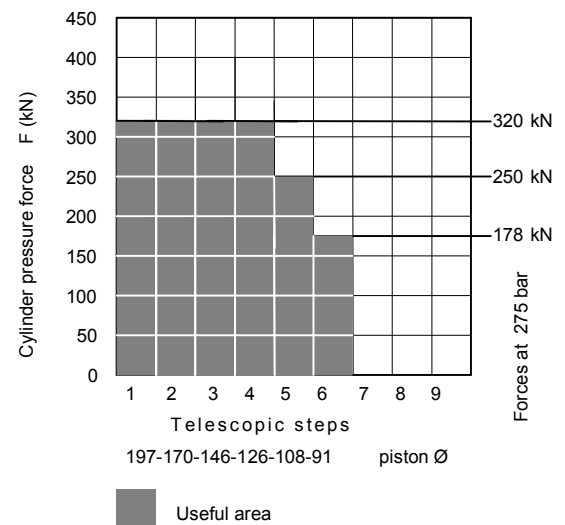
Cylinder at centre of gravity, tipping angle 48°



Technical data

Working pressure	max. 300 bar
Number of telescopic steps	6
Working temperature	-25°C - +80°C
Carrying force ball 68	320 kN
Carrying force cardan VII	500 kN
VKKU-dimension \geq RL 360	min. 210; max. RL-100 Versions in 20 mm distances possible
Release valve	VB16-2 VII VB16-4 VII VB20-1 VII VB20-4 VII
Lubricating nipple	5 pieces, DIN 71412
Standard connection	A1= M27x2 (M33x2)
Special connection	A2, A3= M27x2 (M33x2)

Load diagram



The following parts are to be ordered separately:

Pos	Piece	Denomination	Order Nr.	Weight
1	1	Ball socket 68	506-10003	2,3 kg
2	2	Welded bearing	508-10003	7,6 kg/pc.

Types and dimensions

Type	Small piston Ø	Total stroke	Number of steps Cardan Ball head	RL mm	Norm VKKU	Volume dm ³	Weight kg	a mm	Stroke of the individual telescopic steps								
									1	2	3	4	5	6	7	8	9
									NHSD91-1576-6VKVIIKU	360	25,2	215	127	244	258	258	272
NHSD91-1936-6VKVIIKU	420	31,3	232	127	304	318	318	332	332	332							
NHSD91-2296-6VKVIIKU	480	37,0	248	127	364	378	378	392	392	392							
NHSD91-2626-6VKVIIKU	535	42,4	263	127	419	433	433	447	447	447							
NHSD91-2956-6VKVIIKU	590	47,4	277	127	474	488	488	502	502	502							
NHSD91-3256-6VKVIIKU	640	52,7	291	127	524	538	538	552	552	552							
NHSD91-3677-6VKVIIKU	740	59,3	318	127	587	606	606	626	626	626							
NHSD91-4157-6VKVIIKU	820	67,2	339	127	667	686	686	706	706	706							
NHSD91-4637-6VKVIIKU	900	75,0	361	127	747	766	766	786	786	786							
NHSD91-5237-6VKVIIKU	1000	84,3	388	127	947	866	866	886	886	886							

Subject to modifications

Technical Information on telescopic cylinder
 Technical Information on stroke limitation
 Release and limiting valve

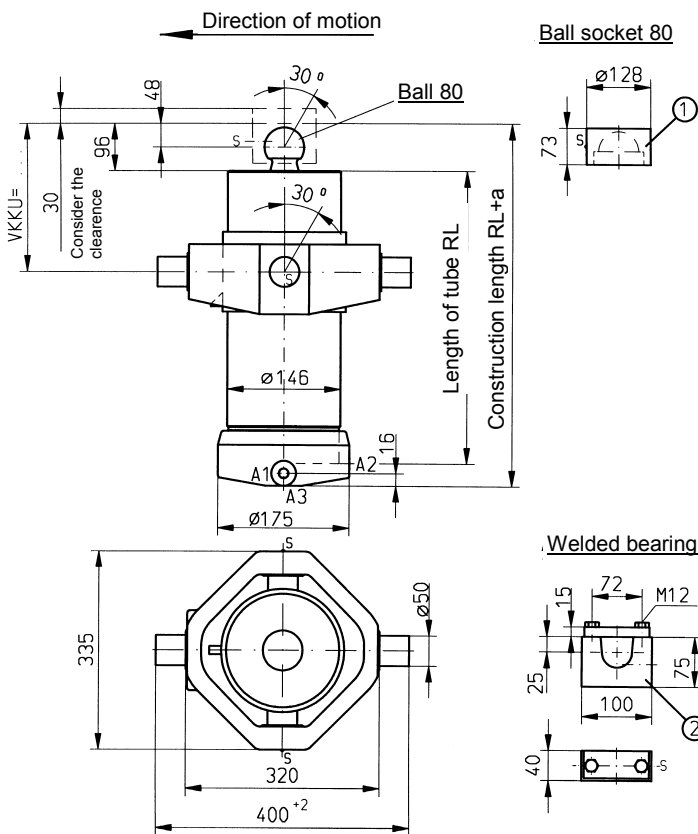
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Neumeister Hydraulik

Tipping weight 250 kN (25 to)

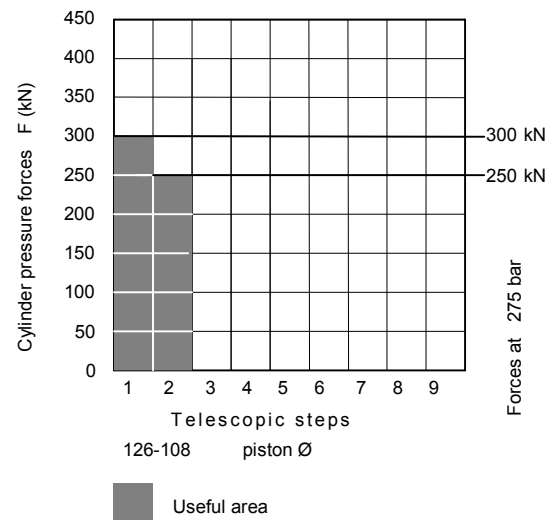
Cylinder at centre of gravity, tipping angle 48°



Technical Data

Working pressure	max. 300 bar	
Number of telescopic steps	2	
Working temperature	-25°C - +80°C	
Carrying force ball 80	440 kN	
Carrying force cardan VI-1	300 kN	
VKKU-dimension \geq RL 535	min. 180; max. RL-20 Versions in 20 mm distances possible	
Release valve	VB16-2 VI-1	VB16-4 VI-1
Lubricating nipple	5 pieces, DIN 71412	
Standard connection	A1=	M22x1,5
Special connection	A2, A3=	M22x1,5

Load diagram



The following parts are to be ordered separately:

Pos	Piece	Denomination	Order Nr.	Weight
1	1	Ball socket 80	506-10005	3,6 kg
2	2	Welded bearing	508-10001	2 kg/pc.

Types and dimensions

Subject to modifications	Type	Small piston Ø	Total stroke	Number of steps Cardan Ball head	RL mm	Norm VKKU	Volume dm ³	Weight kg	a mm	Stroke of the individual telescopic steps								
										1	2	3	4	5	6	7	8	9
										NHSD108- 894-2VKKU	535	270	9,6	103	126	447	447	
NHSD108-1004-2VKKU	590	270	10,4	109	126	502	502											
NHSD108-1104-2VKKU	640	300	11,9	115	126	552	552											
NHSD108-1252-2VKKU	740	350	13,5	127	126	626	626											
NHSD108-1412-2VKKU	820	400	15,2	137	126	706	706											
NHSD108-1572-2VKKU	900	450	16,9	146	126	786	786											
NHSD108-1772-2VKKU	1000	450	19,1	158	126	886	886											

Technical Information on telescopic cylinder
 Technical Information on stroke limitation
 Release and limiting valve

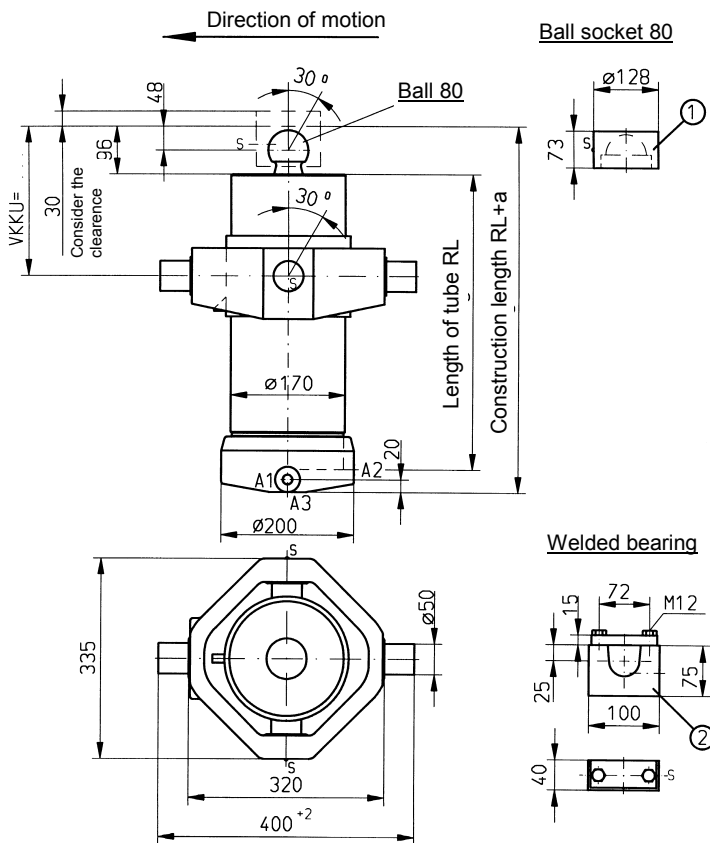
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Neumeister Hydraulik

Tipping weight 250 kN (25 to)

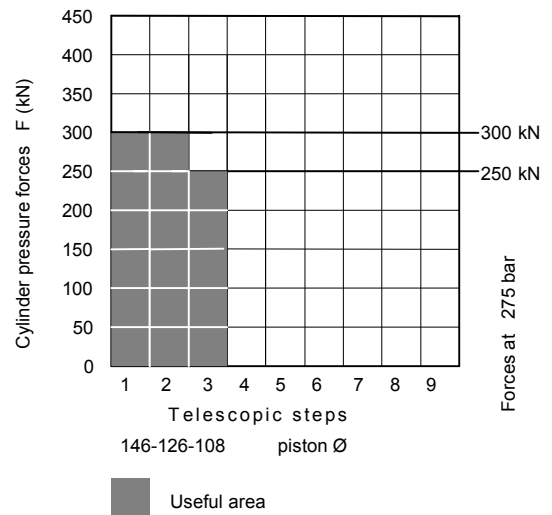
Cylinder at centre of gravity, tipping angle 48°



Technical data

Working pressure	max. 300 bar
Number of telescopic steps	3
Working temperature	-25°C - +80°C
Carrying force ball 80	440 kN
Carrying force cardan VI-1	300 kN
VKKU-dimension ≥ RL 535	min. 180; max. RL-40 Versions in 20 mm distances possible
Release valve	VB16-2 VI-1 VB16-4 VI-1
Lubricating nipple	5 pieces, DIN 71412
Standard connection	A1= M22x1,5
Special connection	A2, A3= M22x1,5

Load diagram



The following parts are to be ordered separately:

Pos	Piece	Denomination	Order Nr.	Weight
1	1	Ball socket 80	506-10005	3,6 kg
2	2	Welded bearing	508-10001	2 kg/pc.

Types and dimensions

Subject to modifications

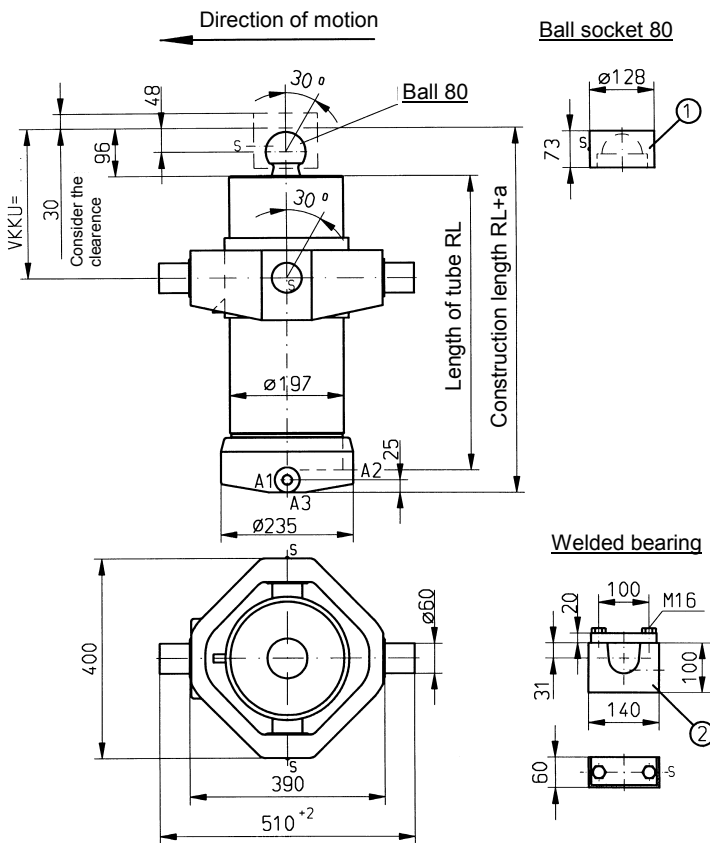
Type	Small piston Ø	Total stroke	Number of steps Cardan Ball head	RL mm	Norm VKKU	Volume dm ³	Weight kg	a mm	Stroke of the individual telescopic steps									
									1	2	3	4	5	6	7	8	9	
NHSD108-1327-3VKKU				535	270	16,9	126	131	433	447	447							
NHSD108-1492-3VKKU				590	270	19,0	135	131	488	502	502							
NHSD108-1642-3VKKU				640	300	20,9	143	131	538	552	552							
NHSD108-1848-3VKKU				740	350	23,7	158	131	606	626	626							
NHSD108-2098-3VKKU				820	400	26,8	171	131	686	706	706							
NHSD108-2338-3VKKU				900	450	29,8	183	131	766	786	786							
NHSD108-2638-3VKKU				1000	450	33,6	199	131	866	886	886							

Technical Information on [telescopic cylinder](#)
 Technical Information on [stroke limitation](#)
 Release and limiting valve

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Tipping weight 300 kN (30 to)

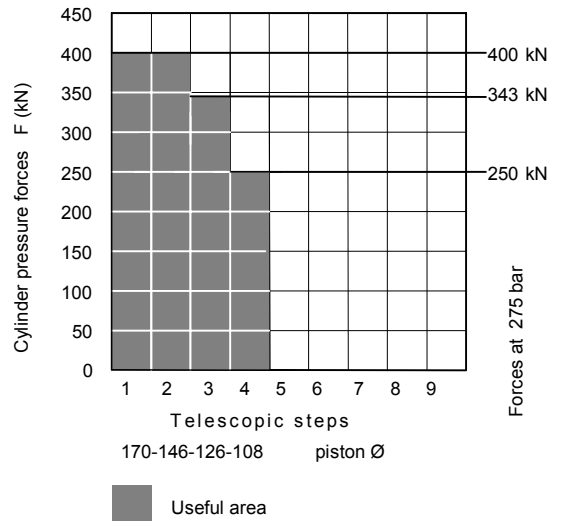
Cylinder at centre of gravity, tipping angle 48°



Technical data

Working pressure	max. 300 bar
Number of telescopic steps	4
Working temperature	-25°C - +80°C
Carrying force ball 80	440 kN
Carrying force cardan VI-3	400 kN
VKKU-dimension \geq RL 535	min. 210; max. RL-80
	Versions in 20 mm distances possible
Release valve	VB16-2 VI-3 VB16-4 VI-3 VB20-1 VI-3 VB20-4 VI-3
Lubricating nipple	5 pieces, DIN 71412
Standard connection	A1= M33x2 (M27x2)
Special connection	A2, A3= M33x2 (M27x2)

Load diagram



The following parts are to be ordered separately:

Pos	Piece	Denomination	Order Nr.	Weight
1	1	Ball socket 80	506-10005	3,6 kg
2	2	Welded bearing	508-10002	6 kg/pc.

Types and dimensions

Type	Small piston Ø	Total stroke	Number of steps	Cardan	Ball head	RL mm	Norm VKKU	Volume dm ³	Weight kg	a mm	Stroke of the individual telescopic steps									
											1	2	3	4	5	6	7	8	9	
											Subject to modifications									
NHSD108-1760-4VKKU						535	300	26,7	182	136	433	433	447	447						
NHSD108-1980-4VKKU						590	300	30,0	194	136	488	488	502	502						
NHSD108-2180-4VKKU						640	350	33,1	204	136	538	538	552	552						
NHSD108-2464-4VKKU						740	350	37,4	225	136	606	606	626	626						
NHSD108-2784-4VKKU						820	400	42,3	242	136	686	686	706	706						
NHSD108-3104-4VKKU						900	400	47,1	258	136	766	766	786	786						
NHSD108-3504-4VKKU						1000	450	53,2	279	136	866	866	886	886						

Technical Information on [telescopic cylinder](#)
 Technical Information on [stroke limitation](#)
 Release and limiting valve

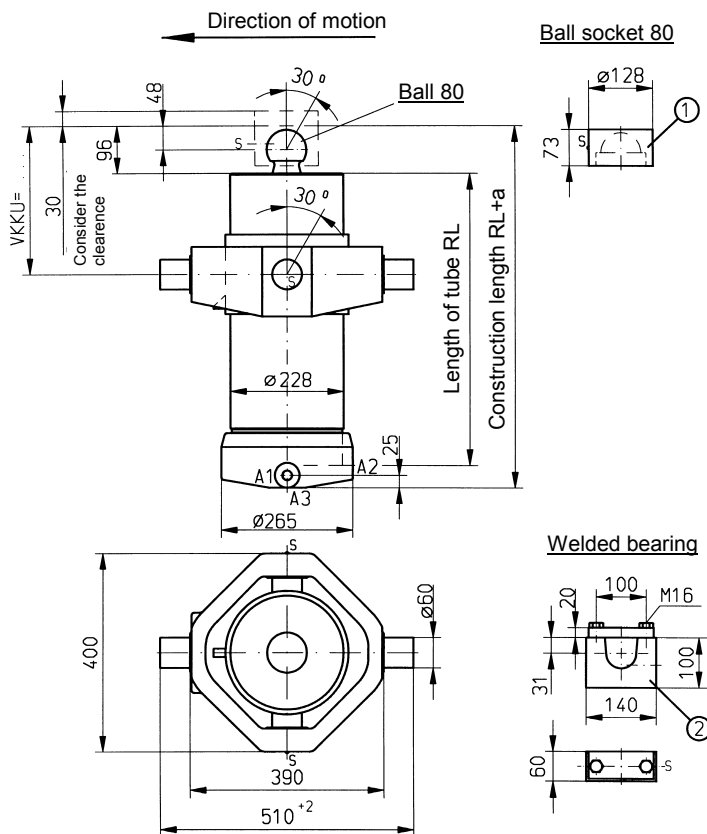
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Neumeister Hydraulik

Tipping weight 340 kN (34 to)

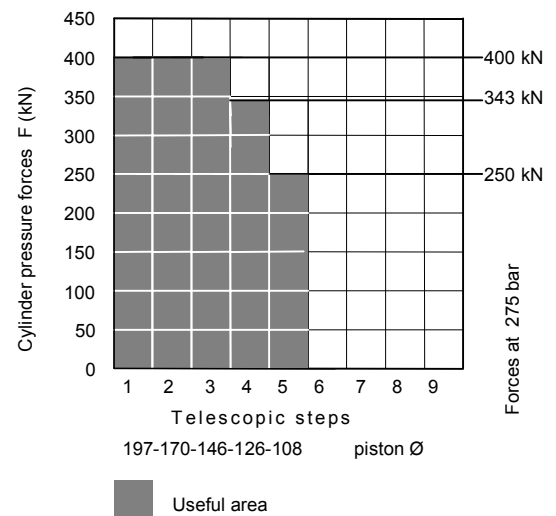
Cylinder at centre of gravity, tipping angle 48°



Technical data

Working pressure	max. 300 bar
Number of telescopic steps	5
Working temperature	-25°C - +80°C
Carrying force ball 80	440 kN
Carrying force cardan VI-3	400 kN
VKKU-dimension \geq RL 535	min. 210; max. RL-120
	Versions in 20 mm distances possible
Release valve	VB16-2 VI-3 VB16-4 VI-3 VB20-1 VI-3 VB20-4 VI-3
Lubricating nipple	5 pieces, DIN 71412
Standard connection	A1= M33x2 (M27x2)
Special connection	A2, A3= M33x2 (M27x2)

Load diagram



The following parts are to be ordered separately:

Pos	Piece	Denomination	Order Nr.	Weight
1	1	Ball socket 80	506-10005	3,6 kg
2	2	Welded bearing	508-10002	6 kg/pc.

Types and dimensions

Type	Small piston Ø	Total stroke	Number of steps Cardan Ball head	RL mm	Norm VKKU	Volume dm ³	Weight kg	a mm	Stroke of the individual telescopic steps								
									1	2	3	4	5	6	7	8	9
									NHSD108-2179-5VKKU	535	300	39,5	223	141	419	433	433
NHSD108-2454-5VKKU	590	350	44,5	238	141	474	488	488	502	502							
NHSD108-2704-5VKKU	640	450	49,1	251	141	524	538	538	552	552							
NHSD108-3051-5VKKU	740	450	55,3	279	141	587	606	606	626	626							
NHSD108-3451-5VKKU	820	450	62,4	301	141	667	686	686	706	706							
NHSD108-3851-5VKKU	900	450	69,7	323	141	747	766	766	786	786							
NHSD108-4351-5VKKU	1000	450	79,1	350	141	847	866	866	886	886							

Subject to modifications

Technical Information on telescopic cylinder
 Technical Information on stroke limitation
 Release and limiting valve

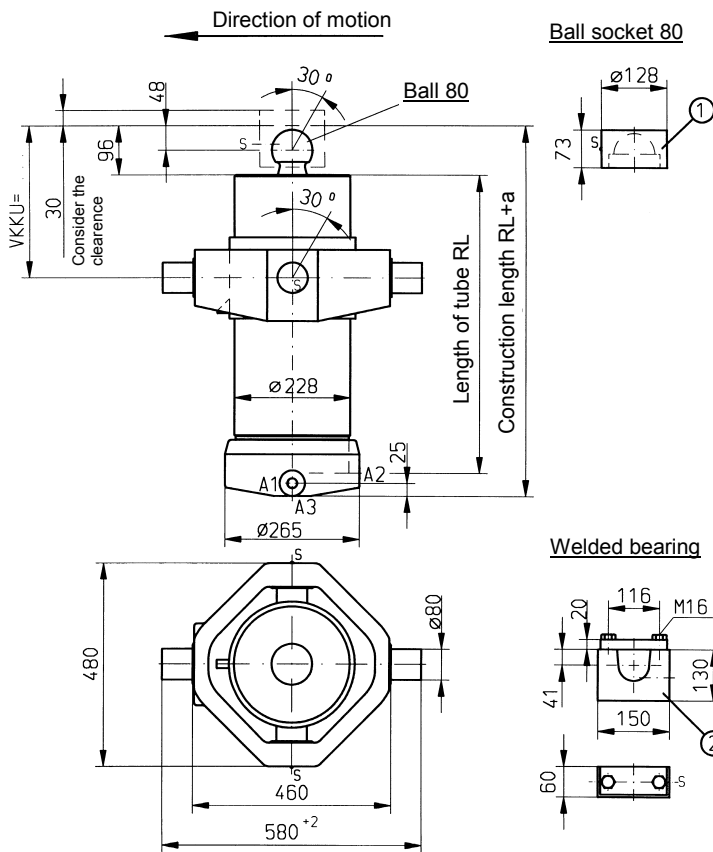
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Neumeister Hydraulik

Tipping weight 340 kN (34 to)

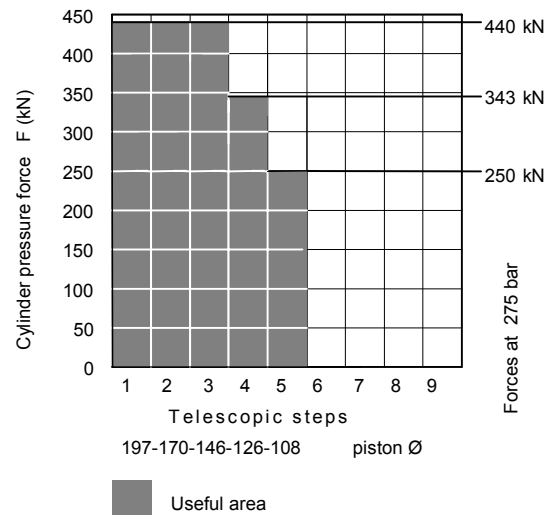
Cylinder at centre of gravity, tipping angle 48°



Technical data

Working pressure	max. 300 bar
Number of telescopic steps	5
Working temperature	-25°C - +80°C
Carrying force ball 80	440 kN
Carrying force cardan VII	550 kN
VKKU-dimension \geq RL 535	min. 220; max. RL-90 Versions in 20 mm distances possible
Release valve	VB16-2 VII VB16-4 VII VB20-1 VII VB20-4 VII
Lubricating nipple	5 pieces, DIN 71412
Standard connection	A1= M33x2 (M27x2)
Special connection	A2, A3= M33x2 (M27x2)

Load diagram



The following parts are to be ordered separately:

Pos	Piece	Denomination	Order Nr.	Weight
1	1	Ball socket 80	506-10005	3,6 kg
2	2	Welded bearing	508-10003	7,6 kg/pc.

Types and dimensions

Type	Small piston Ø	Total stroke	Number of steps Full cardan Ball head	RL mm	Norm VKKU	Volume dm ³	Weight kg	a mm	Stroke of the individual telescopic steps									
									1	2	3	4	5	6	7	8	9	
Subject to modifications	NHSD108-2179-5VKVIIKU			535		39,5	266	141	419	433	433	447	447					
	NHSD108-2454-5VKVIIKU			590		44,5	280	141	474	488	488	502	502					
	NHSD108-2704-5VKVIIKU			640		49,1	297	141	524	538	538	552	552					
	NHSD108-3051-5VKVIIKU			740		55,3	321	141	587	606	606	626	626					
	NHSD108-3451-5VKVIIKU			820		62,4	343	141	667	686	686	706	706					
	NHSD108-3851-5VKVIIKU			900		69,7	365	141	747	766	766	786	786					
	NHSD108-4351-5VKVIIKU			1000		79,1	392	141	847	866	866	886	886					

Technical Information on telescopic cylinder
 Technical Information on stroke limitation
 Release and limiting valve

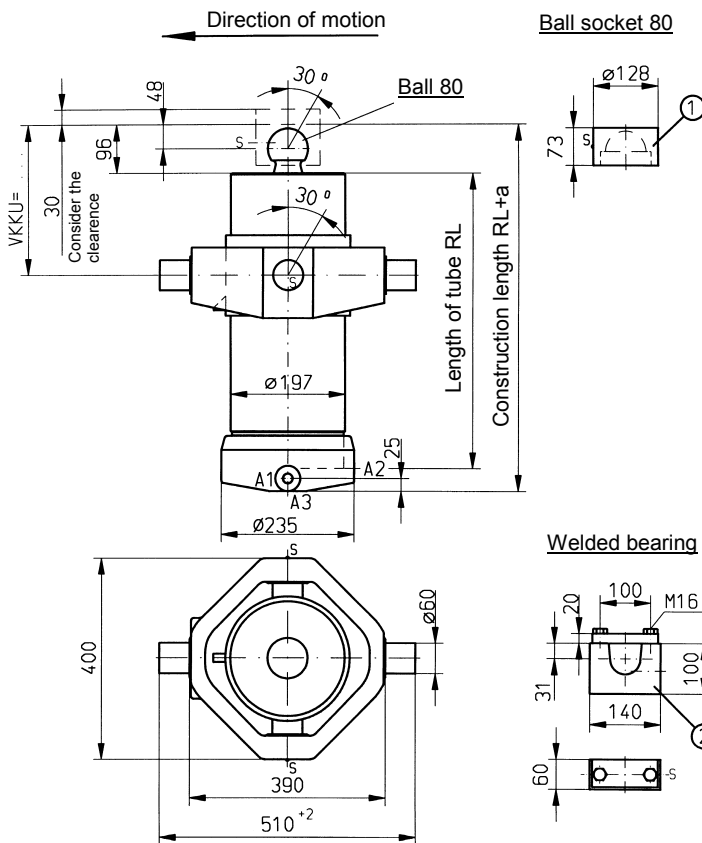
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Neumeister Hydraulik

Tipping weight 340 kN (34 to)

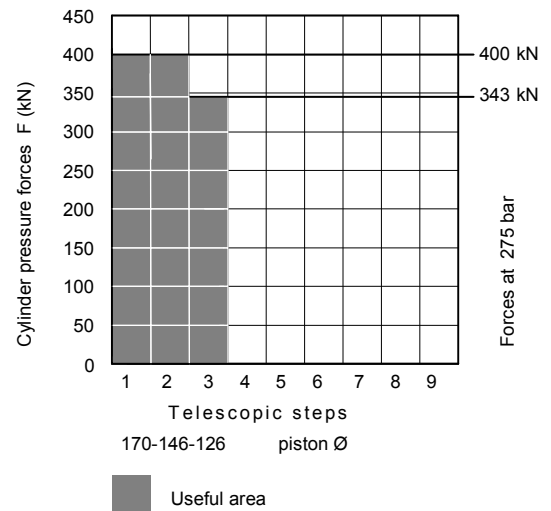
Cylinder at centre of gravity, tipping angle 48°



Technical data

Working pressure	max. 300 bar
Number of telescopic steps	3
Working temperature	-25°C - +80°C
Carrying force ball 80	440 kN
Carrying force cardan VI-3	400 kN
VKKU-dimension \geq RL 535	min. 210; max. RL-80 Versions in 20 mm distances possible
Release valve	VB16-2 VI-3 VB16-4 VI-3 VB20-1 VI-3 VB20-4 VI-3
Lubricating nipple	5 pieces, DIN 71412
Standard connection	A1= M33x2 (M27x2)
Special connection	A2, A3= M33x2 (M27x2)

Load diagram



The following parts are to be ordered separately:

Pos	Piece	Denomination	Order Nr.	Weight
1	1	Ball socket 80	506-10005	3,6 kg
2	2	Welded bearing	508-10002	6 kg/pc.

Types and dimensions

Type	Small piston Ø	Total stroke	Number of steps Cardan Ball head	RL mm	Norm VKKU	Volume dm ³	Weight kg	a mm	Stroke of the individual telescopic steps								
									1	2	3	4	5	6	7	8	9
									Subject to modifications								
NHSD126-1313-3VKKU				535	300	22,6	185	136	433	433	447						
NHSD126-1478-3VKKU				590	300	25,4	197	136	488	488	502						
NHSD126-1628-3VKKU				640	350	28,0	207	136	538	538	552						
NHSD126-1838-3VKKU				740	350	31,6	229	136	606	606	626						
NHSD126-2078-3VKKU				820	400	35,8	248	136	686	686	706						
NHSD126-2318-3VKKU				900	400	39,9	263	136	766	766	786						
NHSD126-2618-3VKKU				1000	450	45,1	284	136	866	866	886						

Technical Information on telescopic cylinder
 Technical Information on stroke limitation
 Release and limiting valve

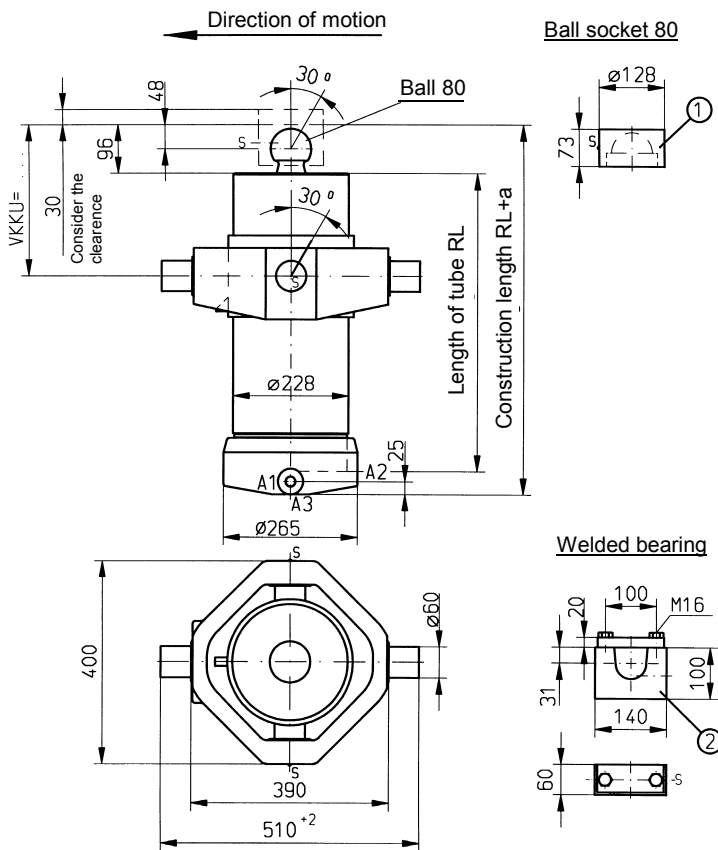
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Neumeister Hydraulik

Tipping weight 400 kN (40 to)

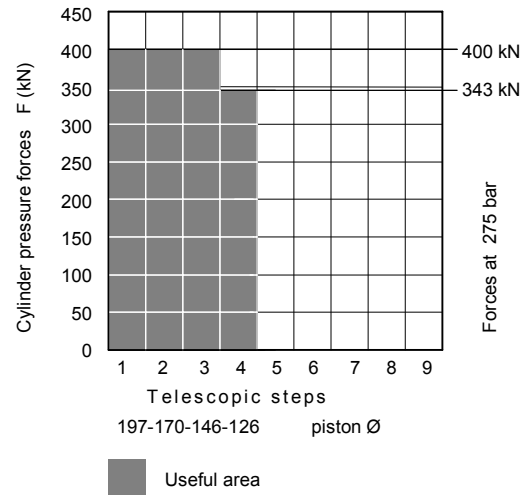
Cylinder at centre of gravity, tipping angle 48°



Technical data

Working pressure	max. 300 bar	
Number of telescopic steps	4	
Working temperature	-25°C - +80°C	
Carrying force ball 80	440 kN	
Carrying force cardan VI-3	400 kN	
VKKU-dimension \geq RL 535	min. 210; max. RL-120 Versions in 20 mm distances possible	
Release valve	VB16-2 VI-3	VB16-4 VI-3
	VB20-1 VI-3	VB20-4 VI-3
Lubricating nipple	5 pieces, DIN 71412	
Standard connection	A1= M33x2 (M27x2)	
Special connection	A2, A3= M33x2 (M27x2)	

Load diagram



The following parts are to be ordered separately:

Pos	Piece	Denomination	Order Nr.	Weight
1	1	Ball socket 80	506-10005	3,6 kg
2	2	Welded bearing	508-10002	6 kg/pc.

Types and dimensions

Subject to modifications

Type	Small piston Ø	Total stroke	Number of steps Cardan Ball head	RL mm	Norm VKKU	Volume dm ³	Weight kg	a mm	Stroke of the individual telescopic steps									
									1	2	3	4	5	6	7	8	9	
NHSD126-1732-4VKKU				535	300	35,4	226	141	419	433	433	447						
NHSD126-1952-4VKKU				590	350	39,9	241	141	474	488	488	502						
NHSD126-2152-4VKKU				640	450	44,0	255	141	524	538	538	552						
NHSD126-2425-4VKKU				740	450	49,5	283	141	587	606	606	626						
NHSD126-2745-4VKKU				820	450	56,1	305	141	667	686	686	706						
NHSD126-3065-4VKKU				900	450	62,7	328	141	747	766	766	786						
NHSD126-3465-4VKKU				1000	450	71,0	356	141	847	866	866	886						

Technical Information on [telescopic cylinder](#)
 Technical Information on [stroke limitation](#)
 Release and limiting valve

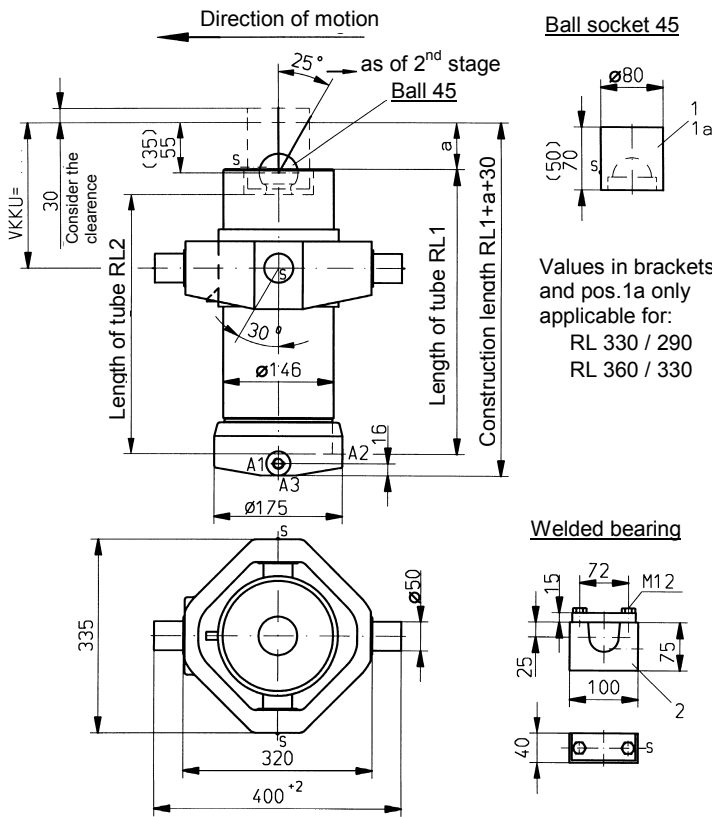
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Neumeister Hydraulik

Tipping weight 100 kN (10 to)

Cylinder at centre of gravity, tipping angle 48°



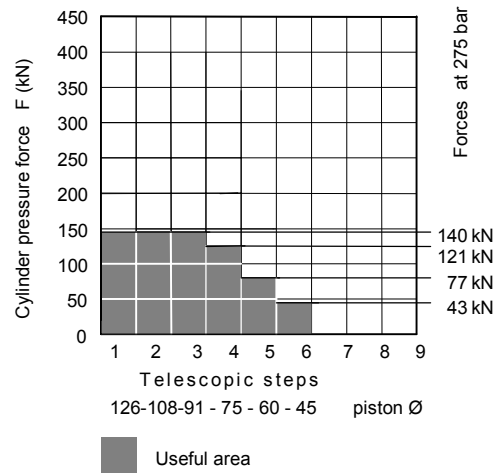
The following parts are to be ordered separately:

Pos	Piece	Denomination	Order Nr.	Weight
1a	1	Ball socket 45V	506-10008	1,2 kg
1	1	Ball socket 45V	506-10007	2 kg
2	2	Welded bearing	508-10001	2 kg/pc.

Technical data

Working pressure	max. 300 bar
Number of telescopic steps	6
Working temperature	-25°C - +80°C
Carrying force ball 45	140 kN
Carrying force cardan VI-1	300 kN
VKKU- dim. ≥ RL 330/290	min. 120; max. RL ₁ -114+a Versions in 20 mm distances possible
Release valve	VB16-2 VI-1 VB16-4 VI-1
Lubricating nipple	5 pieces, DIN 71412
Standard connection	A1= M22x1,5
Special connection	A2, A3= M22x1,5

Load diagram



Types and dimensions

Subject to modifications

Type	Small piston Ø Version	Total stroke	Number of steps Cardan ball head	RL mm	Norm VKKU	Volume dm ³	Weight kg	a mm	Stroke of the individual telescopic steps								
									1	2	3	4	5	6	7	8	
NHSD45V-1258-6VKKU				330 / 290	180	7,9	70	24	242	202	202	202	205	205			
NHSD45V-1478-6VKKU				360 / 330	200	9,2	73	34	272	232	232	232	245	245			
NHSD45V-1698-6VKKU				420 / 360	220	10,8	78	24	332	272	272	272	275	275			
NHSD45V-2058-6VKKU				480 / 420	250	13,0	85	24	392	332	332	332	335	335			

Technical Information on [telescopic cylinder](#)
 Technical Information on [stroke limitation](#)
 Release and limiting valve

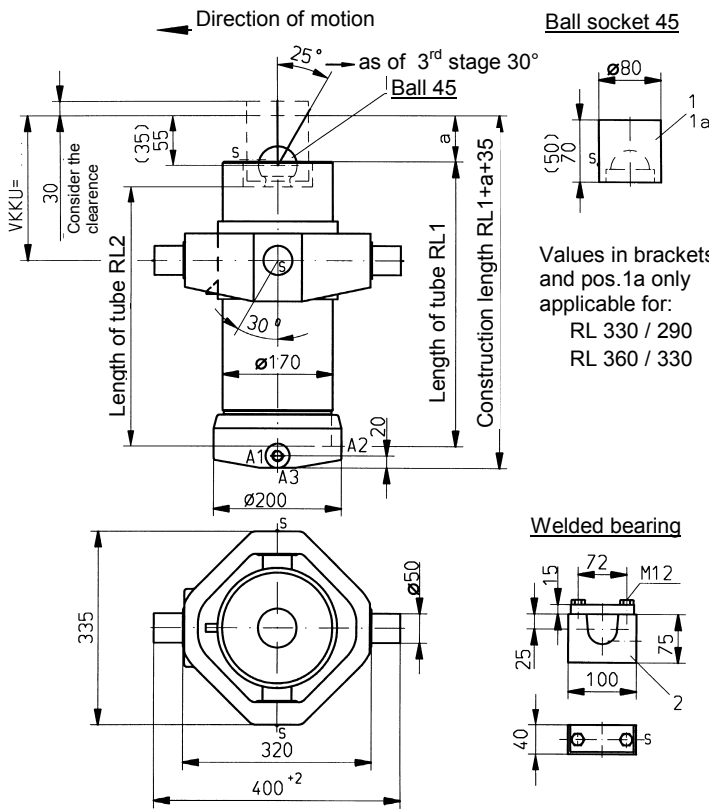
Sheet B-14307
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 Sheet E-14301



Neumeister Hydraulik

Tipping weight 120 kN (12 to)

Cylinder at centre of gravity, tipping angle 48°

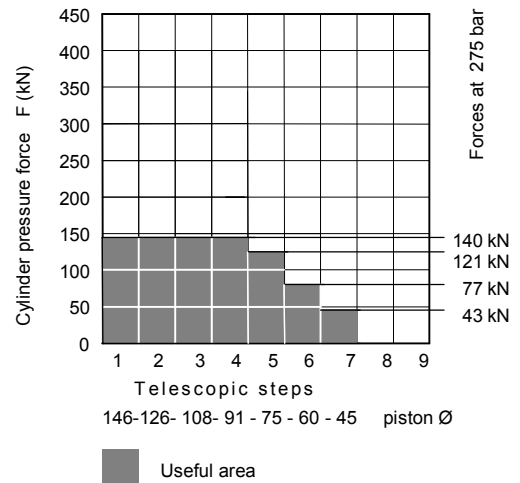


Values in brackets and pos. 1a only applicable for:
RL 330 / 290
RL 360 / 330

Technical data

Working pressure	max. 300 bar
Number of telescopic steps	7
Working temperature	-25°C - +80°C
Carrying force ball 45	140 kN
Carrying force cardan VI-1	300 kN
VKKU-dim. ≥ RL 330/290	min. 120; max. RL ₁ -134+a Versions in 20 mm distances possible
Release valve	VB16-2 VI-1 VB16-4 VI-1
Lubricating nipple	5 pieces, DIN 71412
Standard connection	A1= M22x1,5
Special connection	A2, A3= M22x1,5

Load diagram



The following parts are to be ordered separately:

Pos	Piece	Denomination	Order Nr.	Weight
1a	1	Ball socket 45V	506-10008	1,2 kg
1	1	Ball socket 45V	506-10007	2 kg
2	2	Welded bearing	508-10001	2 kg/pc.

Types and dimensions

Subject to modifications

Type	Small piston ø Version	Total stroke	Number of steps cardan ball head	RL mm	Norm VKKU	Volume dm ³	Weight kg	a mm	Stroke of the individual telescopic steps								
									1	2	3	4	5	6	7	8	
NHSD45V-1486-7VKKU				330 / 290	180	11,7	86	24	228	242	202	202	202	205	205		
NHSD45V-1736-7VKKU				360 / 330	220	13,5	91	34	258	272	232	232	232	245	245		
NHSD45V-2016-7VKKU				420 / 360	250	16,1	98	24	318	332	272	272	272	275	275		
NHSD45V-2423-7VKKU				480 / 420	270	19,3	106	24	378	392	332	332	332	335	335		
NHSD45V-2841-7VKKU				535 / 480	300	22,3	114	29	433	447	387	392	392	395	395		

Technical Information on telescopic cylinder
Technical Information on stroke limitation
Release and limiting valve

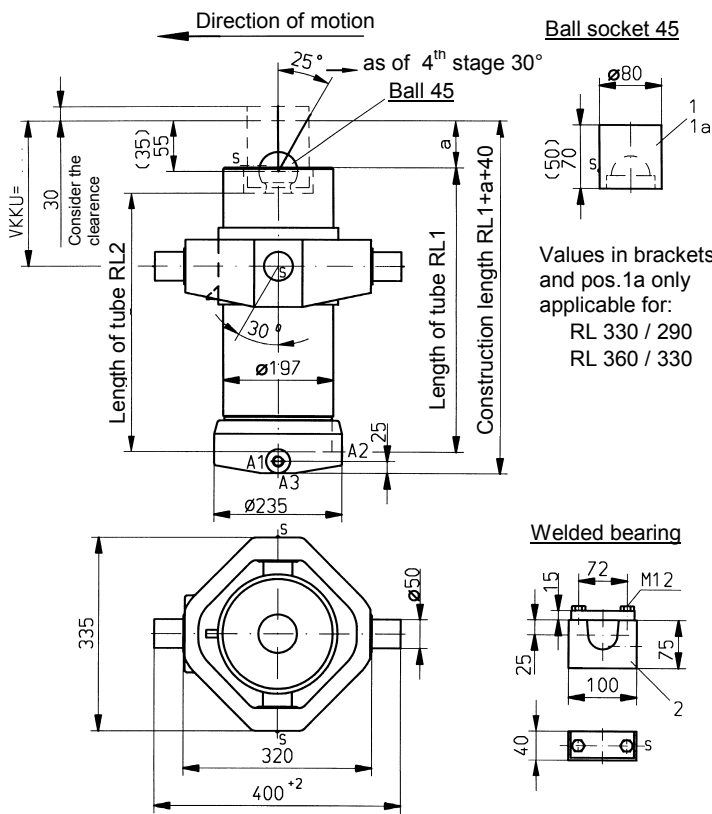
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Neumeister Hydraulik

Tipping weight 140 kN (14 to)

Cylinder at centre of gravity, tipping angle 48°



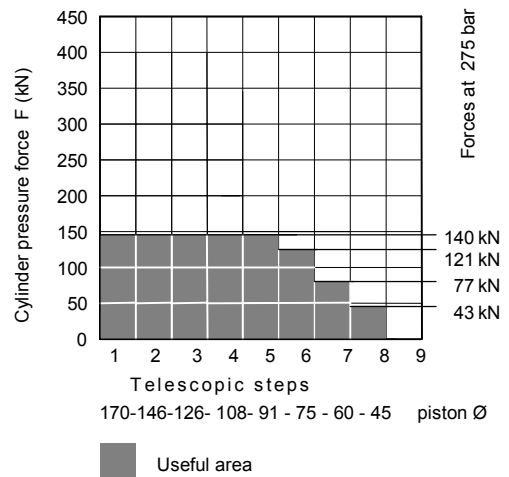
The following parts are to be ordered separately:

Pos	Piece	Denominaton	Order Nr.	Weight
1a	1	Ball socket 45V	506-10008	1,2 kg
1	1	Ball socket 45V	506-10007	2 kg
2	2	Welded bearing	508-10001	2 kg/pc.

Technical data

Working pressure	max. 300 bar
Number of telescopic steps	8
Working temperature	-25°C - +80°C
Carrying force ball 45	140 kN
Carrying force cardan VI-1	300 kN
VKKU-dim. ≥ RL 330/290	min. 120; max. RL ₁ -184+a Versions in 20 mm distances possible
Release valve	VB16-2 VI-1 VB16-4 VI-1
Lubricating nipple	5 pieces, DIN 71412
Standard connection	A1= M27x2 (M33x2)
Special connection	A2, A3= M27x2 (M33x2)

Load diagram



Types and dimensions

Subject to modifications

Type	Small piston Ø	Version	Total stroke	Number of steps cardan ball head	RL mm	Norm VKKU	Volume dm ³	Weight kg	a mm	Stroke of the individual telescopic steps							
										1	2	3	4	5	6	7	8
NHSD45V-1714-8VKKU					330 / 290	170	17,8	117	24	228	228	242	202	202	202	205	205
NHSD45V-1994-8VKKU					360 / 330	210	19,4	124	34	258	258	272	232	232	232	245	245
NHSD45V-2334-8VKKU					420 / 360	250	23,3	134	24	318	318	332	272	272	272	275	275
NHSD45V-2814-8VKKU					480 / 420	270	27,9	146	24	378	378	392	332	332	332	335	335

Technical Information on telescopic cylinder
 Technical Information on stroke limitation
 Release and limiting valve

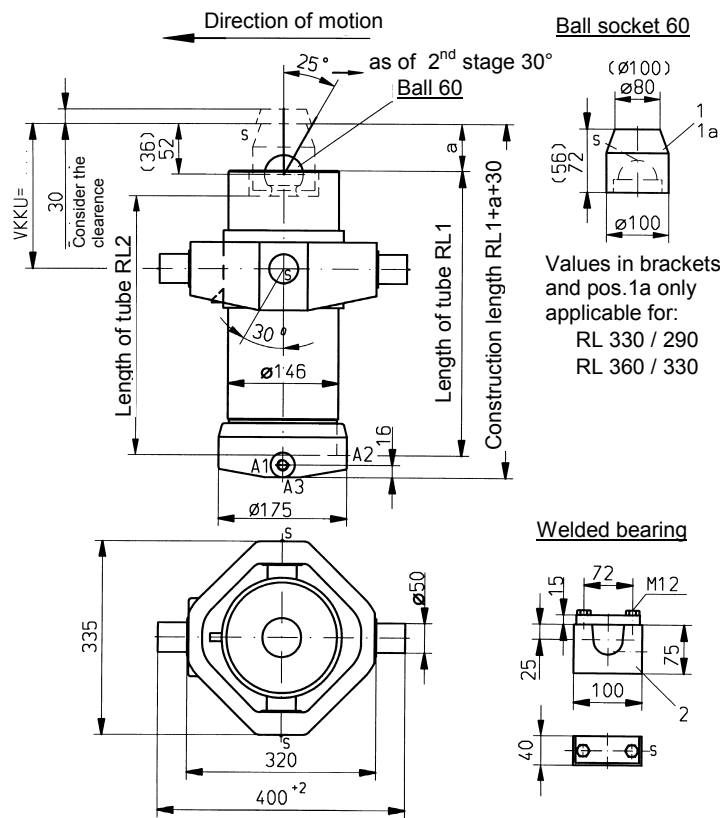
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Neumeister Hydraulik

Tipping weight 120 kN (12 to)

Cylinder at centre of gravity, tipping angle 48°



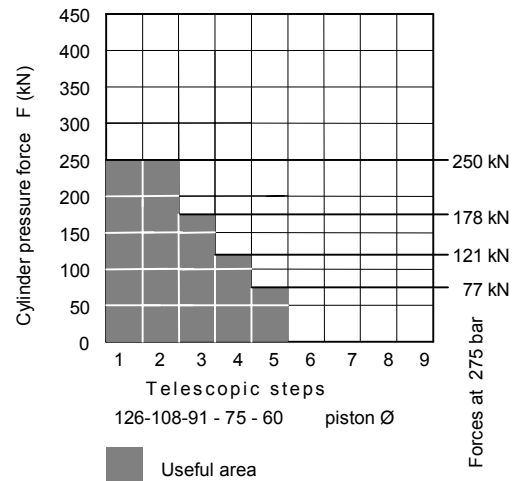
The following parts are to be ordered separately:

Pos	Piece	Denomination	Order Nr.	Weight
1a	1	Ball socket 60	506-10001	1,9 kg
1	1	Ball socket 60V	506-10002	2,3 kg
2	2	Welded bearing	508-10001	2 kg/pc.

Technical data

Working pressure	max. 300 bar
Number of telescopic steps	5
Working temperature	-25°C - +80°C
Carrying force ball 60	250 kN
Carrying force cardan VI-1	300 kN
VKKU-dim. ≥ RL 330/290	min. 130; max. RL ₁ -120+a Versions in 20 mm distances possible
Release valve	VB16-2 VI-1 VB16-4 VI-1
Lubricating nipple	5 pieces, DIN 71412
Standard connection	A1= M22x1,5
Special connection	A2, A3= M22x1,5

Load diagram



Types and dimensions

Subject to modifications

Type	Small piston ø Version	Total stroke	Number of steps Cardan ball head	RL mm	Norm VKKU	Volume dm ³	Weight kg	a mm	Stroke of the individual telescopic steps								
									1	2	3	4	5	6	7	8	
NHSD60V-1053-5VKKU				330 / 290	180	7,4	68	34	242	202	202	202	205				
NHSD60V-1233-5VKKU				360 / 330	220	8,8	72	44	272	232	232	232	245				
NHSD60V-1423-5VKKU				420 / 360	250	10,3	77	30	332	272	272	272	275				
NHSD60V-1723-5VKKU				480 / 420	250	12,4	83	30	392	332	332	332	335				
NHSD60V-2013-5VKKU				535 / 480	270	14,5	90	35	447	387	392	392	395				
NHSD60V-2288-5VKKU				590 / 535	300	16,4	96	35	502	442	447	447	450				
NHSD60V-2553-5VKKU				640 / 590	300	18,2	101	40	552	492	502	502	505				

Technical Information on [telescopic cylinder](#)
 Technical Information on [stroke limitation](#)
 Release and limiting valve

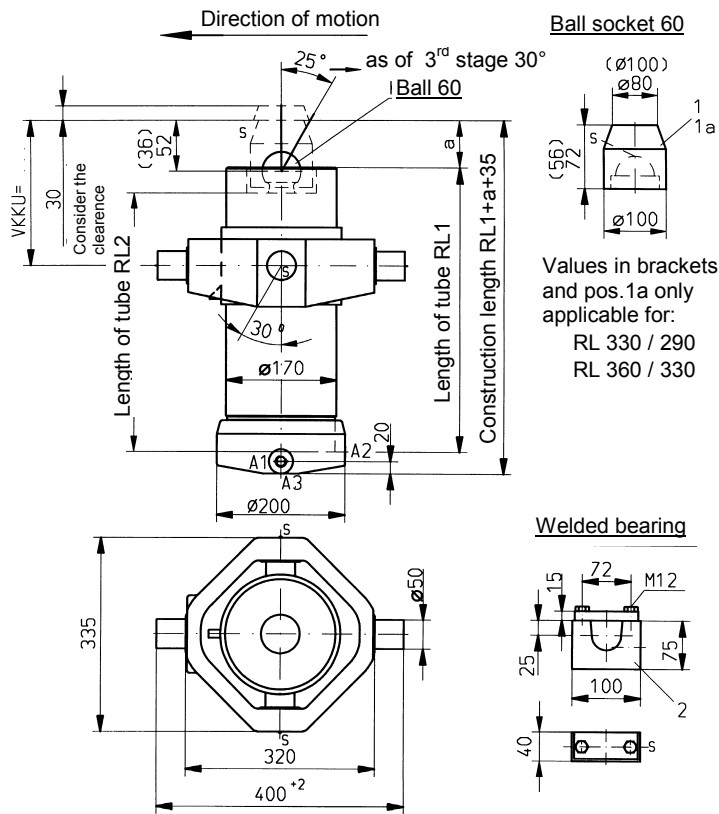
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Neumeister Hydraulik

Tipping weight 150 kN (15 to)

Cylinder at centre of gravity, tipping angle 48°



Values in brackets and pos.1a only applicable for:
 RL 330 / 290
 RL 360 / 330

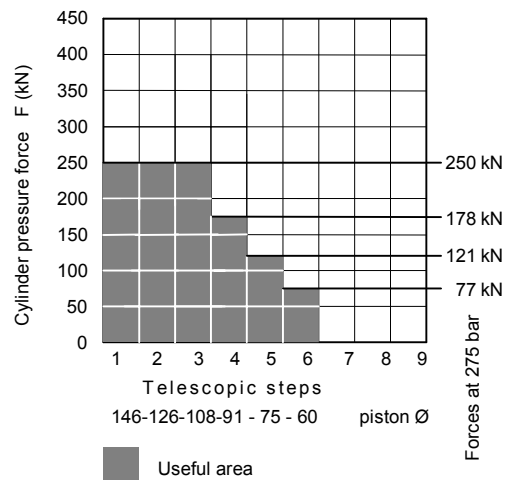
The following parts are to be ordered separately:

Pos	Piece	Denomination	Order Nr.	Weight
1a	1	Ball socket 60	506-10001	1,9 kg
1	1	Ball socket 60V	506-10002	2,3 kg
2	2	Welded bearing	508-10001	2 kg/pc.

Technical data

Working pressure	max. 300 bar
Number of telescopic steps	6
Working temperature	-25°C - +80°C
Carrying force ball 60	250 kN
Carrying force cardan VI-1	300 kN
VKKU-dim. ≥ RL 330/290	min. 130; max. RL ₁ -130+a Versions in 20 mm distances possible
Release valve	VB16-2 VI-1 VB16-4 VI-1
Lubricating nipple	5 pieces, DIN 71412
Standard connection	A1= M22x1,5
Special connection	A2, A3= M22x1,5

Load diagram



Types and dimensions

Subject to modifications

Type	Small piston ø Version	Total stroke	Number of steps cardan ball head	RL mm	Norm VKKU	Volume dm ³	Weight kg	a mm	Stroke of the individual telescopic steps								
									1	2	3	4	5	6	7	8	
NHSD60V-1281-6VKKU				330 / 290	180	11,4	87	34	228	242	202	202	202	205			
NHSD60V-1491-6VKKU				360 / 330	220	13,2	92	44	258	272	232	232	232	245			
NHSD60V-1741-6VKKU				420 / 360	250	15,6	98	30	318	332	272	272	272	275			
NHSD60V-2101-6VKKU				480 / 420	250	18,8	107	30	378	392	332	332	332	335			
NHSD60V-2446-6VKKU				535 / 480	270	21,7	115	35	433	447	387	392	392	395			
NHSD60V-2776-6VKKU				590 / 535	300	24,6	123	35	488	502	442	447	447	450			
NHSD60V-3091-6VKKU				640 / 590	300	27,2	131	40	538	552	492	502	502	505			

Technical Information on telescopic cylinder
 Technical Information on stroke limitation
 Release and limiting valve

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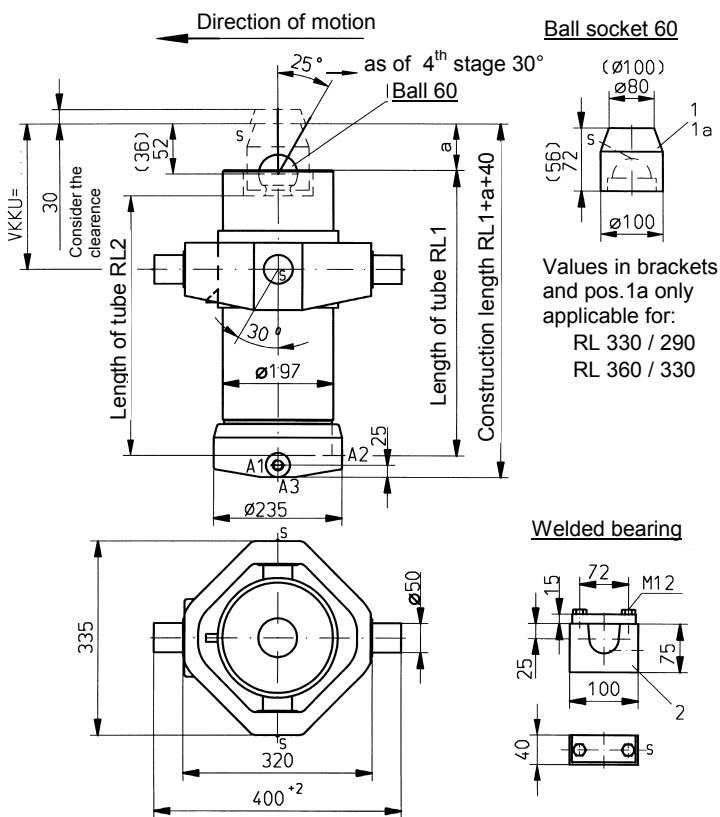


Neumeister Hydraulik

NHSD60V-...-6VKKU – B-09930

Tipping weight 180 kN (18 to)

Cylinder at centre of gravity, tipping angle 48°

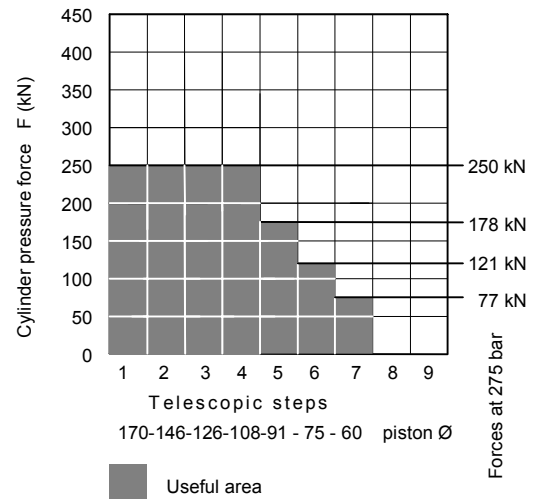


Values in brackets and pos. 1a only applicable for:
RL 330 / 290
RL 360 / 330

Technical data

Working pressure	max. 300 bar
Number of telescopic steps	7
Working temperature	-25°C - +80°C
Carrying force ball 60	250 kN
Carrying force cardan VI-1	300 kN
VKKU-dim. ≥ RL 330/290	min. 130; max. RL ₁ -190+a Versions in 20 mm distances possible
Release valve	VB16-2 VI-1 VB16-4 VI-1
Lubricating nipple	5 pieces, DIN 71412
Standard connection	A1= M27x2 (M33x2)
Special connection	A2, A3= M27x2 (M33x2)

Load diagram



The following parts are to be ordered separately:

Pos	Piece	Denomination	Order Nr.	Weight
1a	1	Ball socket 60	506-10001	1,9 kg
1	1	Ball socket 60V	506-10002	2,3 kg
2	2	Welded bearing	508-10001	2 kg/pc.

Types and dimensions

Subject to modifications

Type	Small piston ø	Version	Total stroke	Number of steps	Cardan ball head	RL mm	Norm VKKU	Volume dm ³	Weight kg	a mm	Stroke of the individual telescopic steps							
											1	2	3	4	5	6	7	8
NHSD60V-1509-7VKKU						330 / 290	180	16,6	110	34	228	228	242	202	202	202	205	
NHSD60V-1759-7VKKU						360 / 330	220	19,0	116	44	258	258	272	232	232	232	245	
NHSD60V-2059-7VKKU						420 / 360	250	22,9	125	30	318	318	332	272	272	272	275	
NHSD60V-2479-7VKKU						480 / 420	250	27,3	137	30	378	378	392	332	332	332	335	
NHSD60V-2879-7VKKU						535 / 480	270	31,5	148	35	433	433	447	387	392	392	395	
NHSD60V-3264-7VKKU						590 / 535	300	36,5	159	35	488	488	502	442	447	447	450	
NHSD60V-3629-7VKKU						640 / 590	300	39,4	169	40	538	538	552	492	502	502	505	

Technical Information on [telescopic cylinder](#)
 Technical Information on [stroke limitation](#)
 Release and limiting valve

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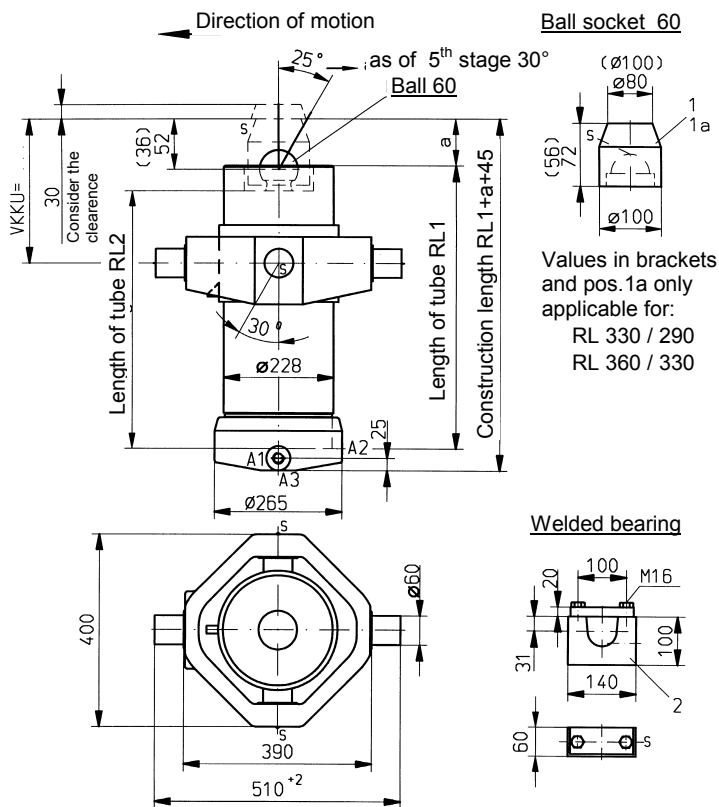


Neumeister **Hydraulik**

NHSD60V-...-7VKKU – B-09931

Tipping weight 215 kN (21,5 to)

Cylinder at centre of gravity, tipping angle 48°



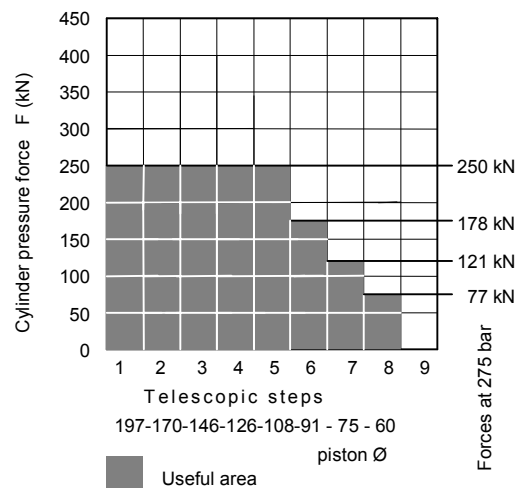
The following parts are to be ordered separately:

Pos	Piece	Denomination	Order Nr.	Weight
1a	1	Ball socket 60	506-10001	1,9 kg
1	1	Ball socket 60V	506-10002	2,3 kg
2	2	Welded bearing	508-10002	6 kg/pc.

Technical data

Working pressure	max. 300 bar
Number of telescopic steps	8
Working temperature	-25°C - +80°C
Carrying force ball 60	250 kN
Carrying force cardan VI-3	400 kN
VKKU-dim. RL 330/290	160
VKKU-dim. ≥ RL 360/330	min. 160; max. RL ₁ -210+a Versions in 20 mm distances possible
Release valve	VB16-2 VI-3 VB16-4 VI-3 VB20-1 VI-3 VB20-4 VI-3
Lubricating nipple	5 pieces, DIN 71412
Standard connection	A1= M27x2 (M33x2)
Special connection	A2, A3= M27x2 (M33x2)

Load diagram



Types and dimensions

Type	Small piston ø	Version	Total stroke	Number of steps	Cardan ball head	RL mm	Norm VKKU	Volume dm ³	Weight kg	a mm	Stroke of the individual telescopic steps							
											1	2	3	4	5	6	7	8
Subject to modifications	NHSD60V-1723-8VKKU					330 / 290	160	23,5	159	34	214	228	228	242	202	202	202	205
	NHSD60V-1993-8VKKU					360 / 330	190	26,3	168	44	244	258	258	272	232	232	232	245
	NHSD60V-2363-8VKKU					420 / 360	200	32,1	182	30	304	318	318	332	272	272	272	275
	NHSD60V-2843-8VKKU					480 / 420	250	38,4	198	30	364	378	378	392	332	332	332	335
	NHSD60V-3298-8VKKU					535 / 480	270	44,3	213	35	419	433	433	447	387	392	392	395
	NHSD60V-3738-8VKKU					590 / 535	300	50,1	227	35	474	488	488	502	442	447	447	450
	NHSD60V-4153-8VKKU					640 / 590	350	55,4	240	40	524	538	538	552	492	502	502	505

Technical Information on telescopic cylinder
 Technical Information on stroke limitation
 Release and limiting valve

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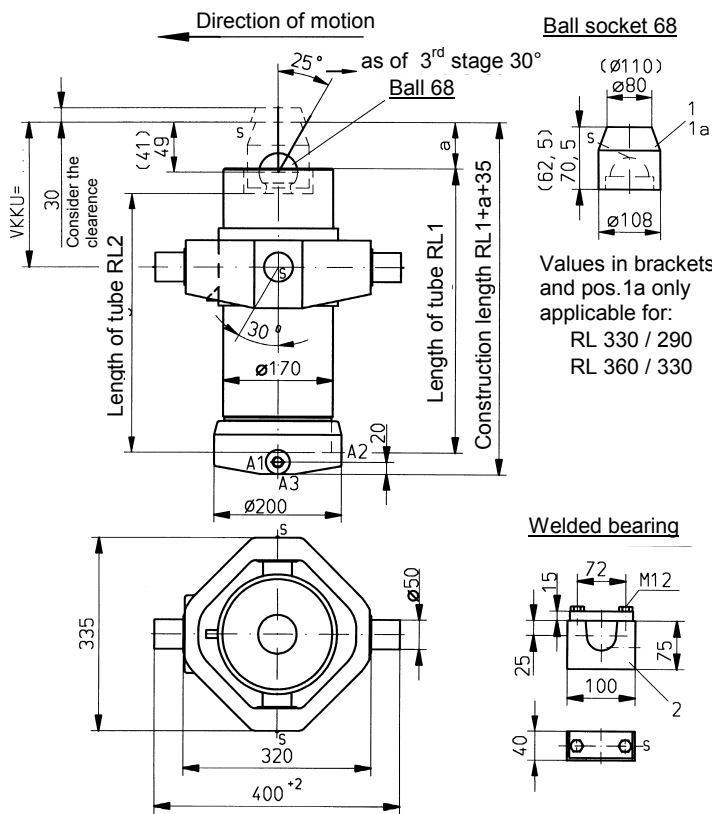


Neumeister Hydraulik

NHSD60V-...-8VKKU – B-10348

Tipping weight 180 kN (18 to)

Cylinder at centre of gravity, tipping angle 48°



Ball socket 68

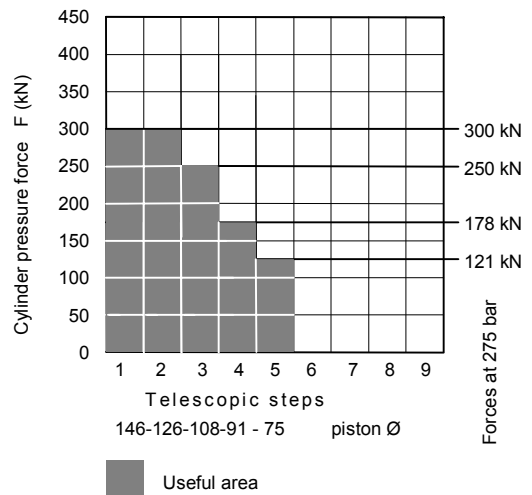
Values in brackets and pos. 1a only applicable for:
 RL 330 / 290
 RL 360 / 330

Welded bearing

Technical data

Working pressure	max. 300 bar
Number of telescopic steps	5
Working temperature	-25°C - +80°C
Carrying force ball 68	320 kN
Carrying force cardan VI-1	300 kN
VKKU-dim. ≥ RL 330/290	min. 140; max. RL ₁ -130+a Versions in 20 mm distances possible
Release valve	VB16-2 VI-1 VB16-4 VI-1
Lubricating nipple	5 pieces, DIN 71412
Standard connection	A1= M22x1,5
Special connection	A2, A3= M22x1,5

Load diagram



The following parts are to be ordered separately:

Pos	Piece	Denomination	Order Nr.	Weight
1a	1	Ball socket 68	506-10003	2,3 kg
1	1	Ball socket 68V	506-10004	2,4 kg
2	2	Welded bearing	508-10001	2 kg/pc.

Types and dimensions

Subject to modifications

Type	Small piston ø Version	Total stroke	Number of steps Cardan ball head	RL mm	Norm VKKU	Volume dm ³	Weight kg	a mm	Stroke of the individual telescopic steps								
									1	2	3	4	5	6	7	8	
NHSD75V-1076-5VKKU				330 / 290	180	10,8	89	42	228	242	202	202	202				
NHSD75V-1246-5VKKU				360 / 330	220	12,4	94	52	258	272	232	232	232				
NHSD75V-1466-5VKKU				420 / 360	260	14,9	101	30	318	332	272	272	272				
NHSD75V-1766-5VKKU				480 / 420	260	17,8	110	30	378	392	332	332	332				
NHSD75V-2051-5VKKU				535 / 480	300	20,6	118	35	433	447	387	392	392				
NHSD75V-2326-5VKKU				590 / 535	330	23,3	126	35	488	502	442	447	447				
NHSD75V-2586-5VKKU				640 / 590	350	25,8	134	40	538	552	492	502	502				

Technical Information on [telescopic cylinder](#)
 Technical Information on [stroke limitation](#)
 Release and limiting valve

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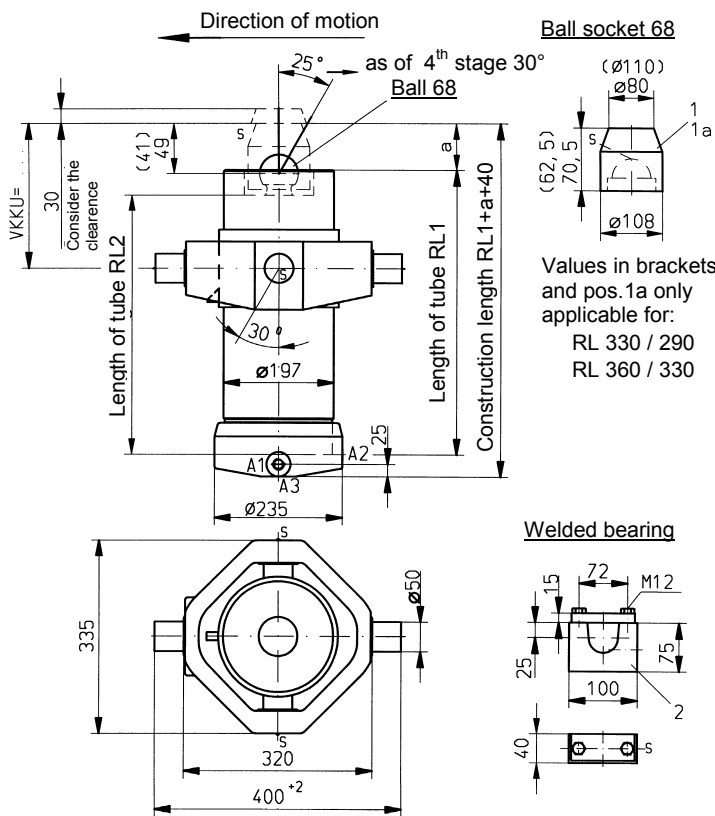


Neumeister Hydraulik

NHSD75V-...-5VKKU – B-09921

Tipping weight 215 kN (21,5 to)

Cylinder at centre of gravity, tipping angle 48°



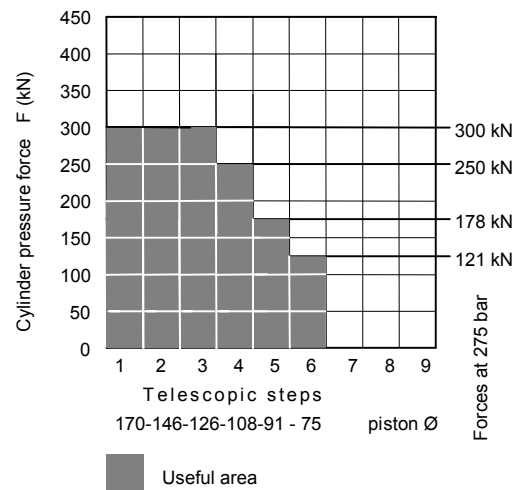
The following parts are to be ordered separately:

Pos	Piece	Denomination	Order Nr.	Weight
1a	1	Ball socket 68	506-10003	2,3 kg
1	1	Ball socket 68V	506-10004	2,4 kg
2	2	Welded bearing	508-10001	2 kg/pc.

Technical data

Working pressure	max. 300 bar
Number of telescopic steps	6
Working temperature	-25°C - +80°C
Carrying force ball 68	320 kN
Carrying force cardan VI-1	300 kN
VKKU-dim. ≥ RL 330/290	min. 140; max. RL ₁ -190+a Versions in 20 mm distances possible
Release valve	VB16-2 VI-1 VB16-4 VI-1
Lubricating nipple	5 pieces, DIN 71412
Standard connection	A1= M27x2 (M33x2)
Special connection	A2, A3= M27x2 (M33x2)

Load diagram



Types and dimensions

Subject to modifications

Type	Small piston Ø Version	Total stroke	Number of steps Cardan ball head	RL mm	Norm VKKU	Volume dm ³	Weight kg	a mm	Stroke of the individual telescopic steps								
									1	2	3	4	5	6	7	8	
NHSD75V-1304-6VKKU				330 / 290	180	16,0	111	42	228	228	242	202	202	202			
NHSD75V-1504-6VKKU				360 / 330	220	18,4	117	52	258	258	272	232	232	232			
NHSD75V-1784-6VKKU				420 / 360	260	22,1	127	30	318	318	332	272	272	272			
NHSD75V-2144-6VKKU				480 / 420	260	26,4	140	30	378	378	392	332	332	332			
NHSD75V-2484-6VKKU				535 / 480	300	30,4	150	35	433	433	447	387	392	392			
NHSD75V-2814-6VKKU				590 / 535	330	34,4	161	35	488	488	502	442	447	447			
NHSD75V-3124-6VKKU				640 / 590	350	38,0	172	40	538	538	552	492	502	502			

Technical Information on [telescopic cylinder](#)
 Technical Information on [stroke limitation](#)
 Release and limiting valve

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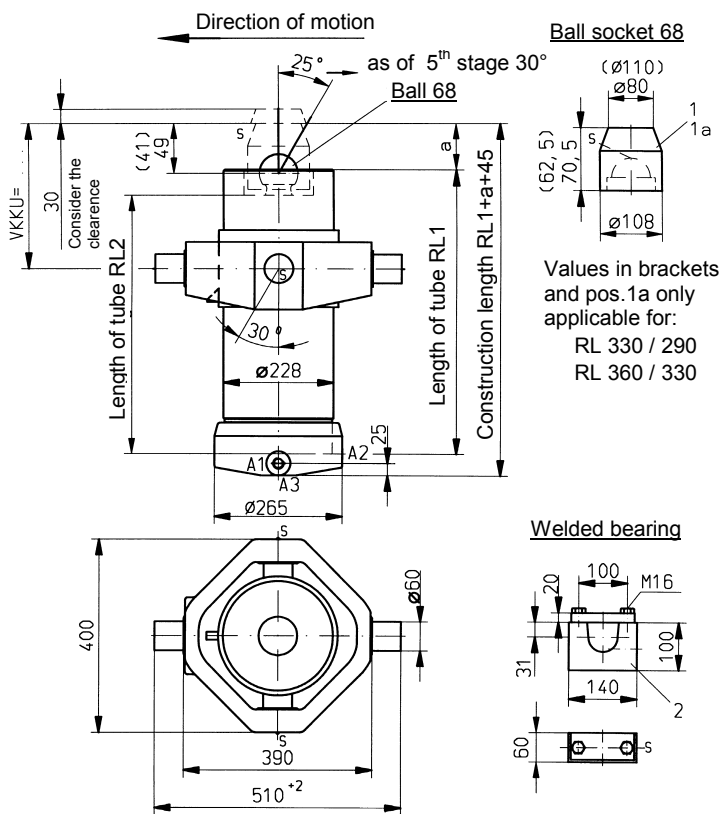


Neumeister Hydraulik

NHSD75V-...-6VKKU – B-09933

Tipping weight 250 kN (25 to)

Cylinder at centre of gravity, tipping angle 48°

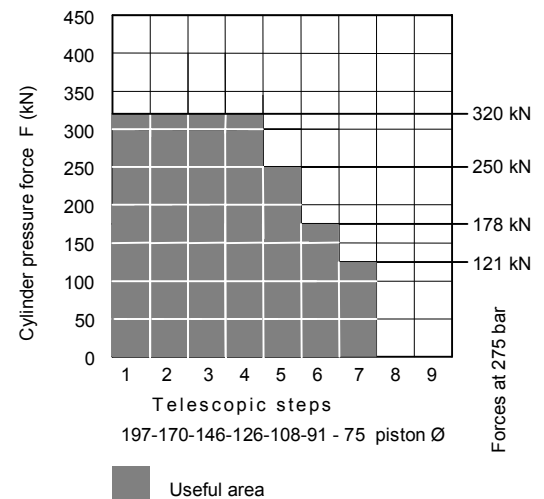


Values in brackets and pos.1a only applicable for:
 RL 330 / 290
 RL 360 / 330

Technical data

Working pressure	max. 300 bar
Number of telescopic steps	7
Working temperature	-25°C - +80°C
Carrying force ball 68	320 kN
Carrying force cardan VI-3	400 kN
VKKU-dim. RL 330/290	160
VKKU-dim. ≥ RL 360/330	min. 170; max. RL ₁ -210+a Versions in 20 mm distances possible
Release valve	VB16-2 VI-3 VB16-4 VI-3 VB20-1 VI-3 VB20-4 VI-3
Lubricating nipple	5 pieces, DIN 71412
Standard connection	A1= M27x2 (M33x2)
Special connection	A2, A3= M27x2 (M33x2)

Load diagram



The following parts are to be ordered separately:

Pos	Piece	Denomination	Order Nr.	Weight
1a	1	Ball socket 68	506-10003	2,3 kg
1	1	Ball socket 68V	506-10004	2,4 kg
2	2	Welded bearing	508-10002	6 kg/pc

Types and dimensions

Subject to modifications

Type	Small piston ø Version	Total stroke	Number of steps cardan ball head	RL mm	Norm VKKU	Volume dm ³	Weight kg	a mm	Stroke of the individual telescopic steps								
									1	2	3	4	5	6	7	8	
NHSD75V-1518-7VKKU				330 / 290	160	22,5	162	42	214	228	228	242	202	202	202		
NHSD75V-1748-7VKKU				360 / 330	200	25,8	170	52	244	258	258	272	232	232	232		
NHSD75V-2088-7VKKU				420 / 360	240	31,3	184	30	304	318	318	332	272	272	272		
NHSD75V-2508-7VKKU				480 / 420	300	37,5	200	30	364	378	378	392	332	332	332		
NHSD75V-2903-7VKKU				535 / 480	300	43,2	216	35	419	433	433	447	387	392	392		
NHSD75V-3288-7VKKU				590 / 535	330	48,9	230	35	474	488	488	502	442	447	447		
NHSD75V-3648-7VKKU				640 / 590	350	54,1	243	40	524	538	538	552	492	502	502		

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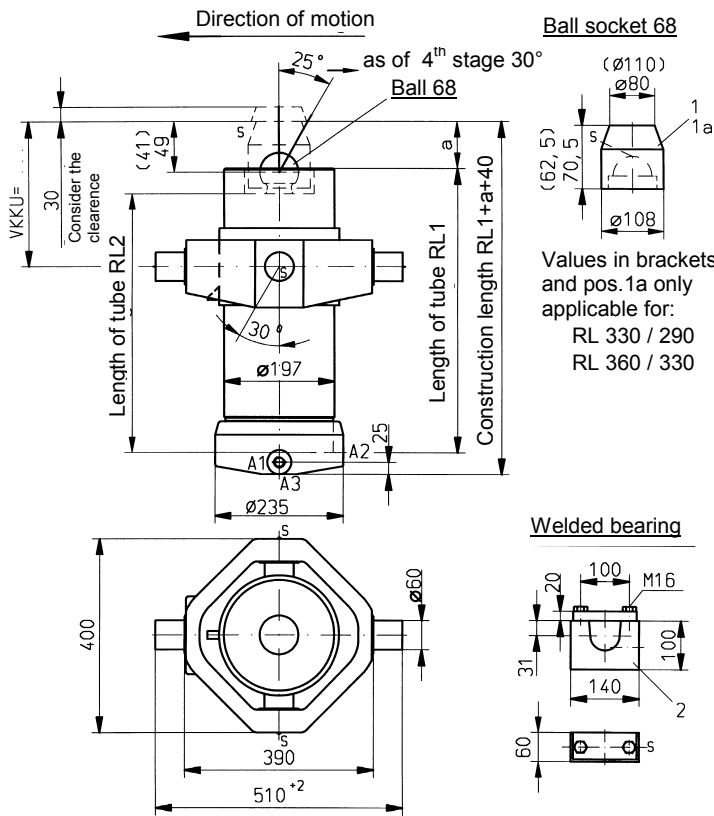


Neumeister Hydraulik

NHSD75V-...-7VKKU – B-09822

Tipping weight 250 kN (25 to)

Cylinder at centre of gravity, tipping angle 48°



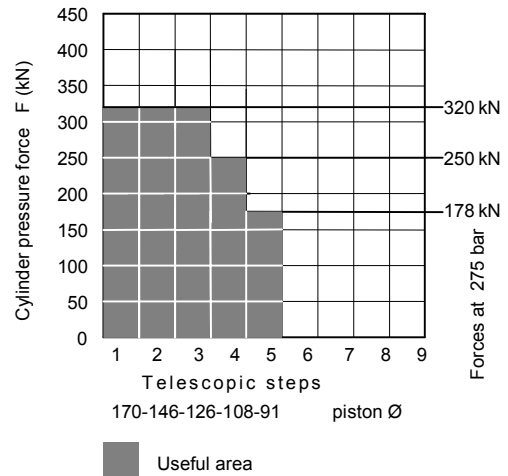
The following parts are to be ordered separately:

Pos	Piece	Denomination	Order Nr.	Weight
1a	1	Ball socket 68	506-10003	2,3 kg
1	1	Ball socket 68V	506-10004	2,4 kg
2	2	Welded bearing	508-10002	6 kg/pc.

Technical data

Working pressure	max. 300 bar
Number of telescopic steps	5
Working temperature	-25°C - +80°C
Carrying force ball 68	320 kN
Carrying force cardan VI-3	400 kN
VKKU-dim. ≥ RL 330/290	min. 170; max. RL ₁ -170+a Versions in 20 mm distances possible
Release valve	VB16-2 VI-3 VB16-4 VI-3 VB20-1 VI-3 VB20-4 VI-3
Lubricating nipple	5 pieces, DIN 71412
Standard connection	A1= M27x2 (M33x2)
Special connection	A2, A3= M27x2 (M33x2)

Load diagram



Types and dimensions

Subject to modifications

Type	Small piston Ø	Version	Total stroke	Number of steps	Cardan ball head	RL mm	Norm VKKU	Volume dm ³	Weight kg	a mm	Stroke of the individual telescopic steps								
											1	2	3	4	5	6	7	8	
NHSD91V-1102-5VKKU						330 / 290	200	15,1	135	42	228	228	242	202	202				
NHSD91V-1262-5VKKU						360 / 330	230	17,2	142	52	258	258	272	232	232				
NHSD91V-1512-5VKKU						420 / 360	250	20,9	152	30	318	318	332	272	272				
NHSD91V-1812-5VKKU						480 / 420	300	24,9	165	30	378	378	392	332	332				
NHSD91V-2092-5VKKU						535 / 480	320	29,0	176	35	433	433	447	387	392				
NHSD91V-2367-5VKKU						590 / 535	350	32,4	187	35	488	488	502	442	447				
NHSD91V-2622-5VKKU						640 / 590	370	35,8	198	40	538	538	552	492	502				

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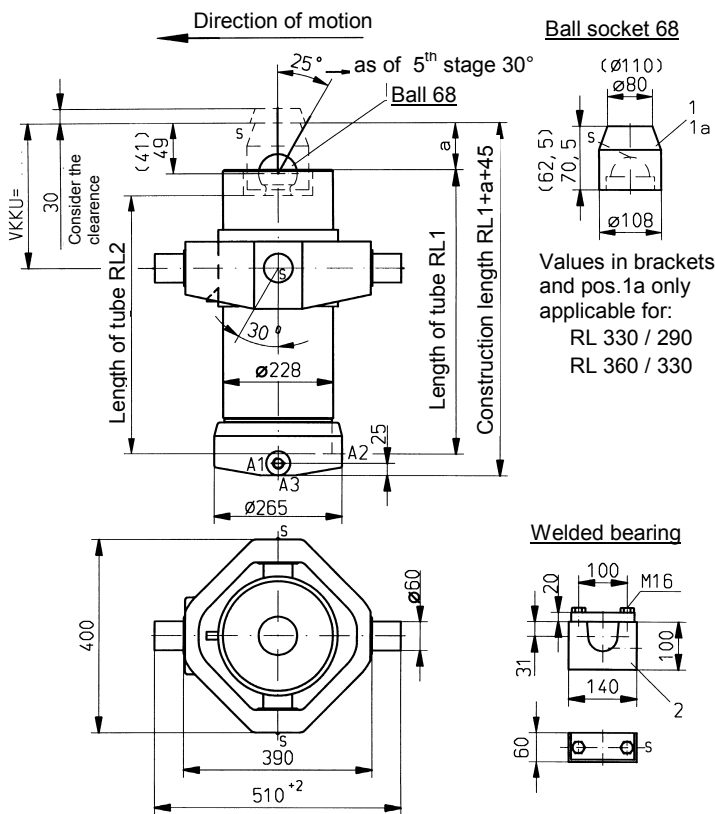


Neumeister Hydraulik

NHSD91V-...-5VKKU – B-10655

Tipping weight 300 kN (30 to)

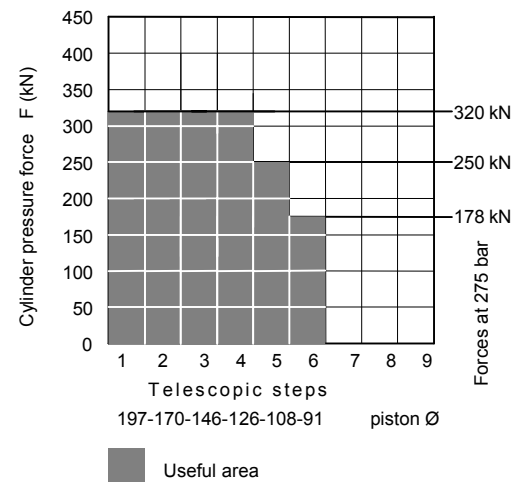
Cylinder at centre of gravity, tipping angle 48°



Technical data

Working pressure	max. 300 bar
Number of telescopic steps	6
Working temperature	-25°C - +80°C
Carrying force ball 68	320 kN
Carrying force cardan VI-3	400 kN
VKKU-dim. RL 330/290	160
VKKU-dim. ≥ RL 360/330	min. 170; max. RL ₁ -210+a Versions in 20 mm distances possible
Release valve	VB16-2 VI-3 VB16-4 VI-3 VB20-1 VI-3 VB20-4 VI-3
Lubricating nipple	5 pieces, DIN 71412
Standard connection	A1= M27x2 (M33x2)
Special connection	A2, A3= M27x2 (M33x2)

Load diagram



The following parts are to be ordered separately:

Pos	Piece	Denomination	Order Nr.	Weight
1a	1	Ball socket 68	506-10003	2,3 kg
1	1	Ball socket 68V	506-10004	2,4 kg
2	2	Welded bearing	508-10002	6 kg/pc.

Types and dimensions

Subject to modifications

Type	Small piston ø	Version	Total stroke	Number of steps cardan ball head	RL mm	Norm VKKU	Volume dm ³	Weight kg	a mm	Stroke of the individual telescopic steps							
										1	2	3	4	5	6	7	8
NHSD91V-1316-6VKKU					330 / 290	160	21,6	162	42	214	228	228	242	202	202		
NHSD91V-1506-6VKKU					360 / 330	200	24,7	171	52	244	258	258	272	232	232		
NHSD91V-1816-6VKKU					420 / 360	250	30,1	185	30	304	318	318	332	272	272		
NHSD91V-2176-6VKKU					480 / 420	300	35,8	201	30	364	378	378	392	332	332		
NHSD91V-2511-6VKKU					535 / 480	320	41,5	21,7	35	419	433	433	447	387	392		
NHSD91V-2841-6VKKU					590 / 535	350	46,8	231	35	474	488	488	502	442	447		
NHSD91V-3146-6VKKU					640 / 590	370	51,8	245	40	524	538	538	552	492	502		

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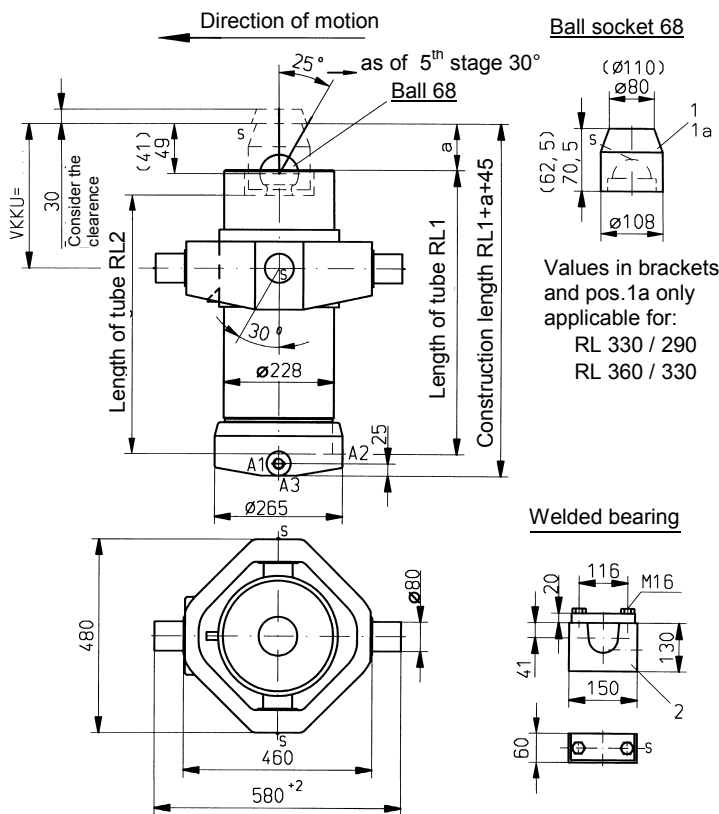


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NHSD91V-...-6VKKU – B-09928

Tipping weight 300 kN (30 to)

Cylinder at centre of gravity, tipping angle 48°



The following parts are to be ordered separately:

Pos	Piece	Denomination	Order Nr.	Weight
1a	1	Ball socket 68	506-10003	2,3 kg
1	1	Ball socket 68V	506-10004	2,4 kg
2	2	Welded bearing	508-10003	7,6 kg/pc.

Technical data

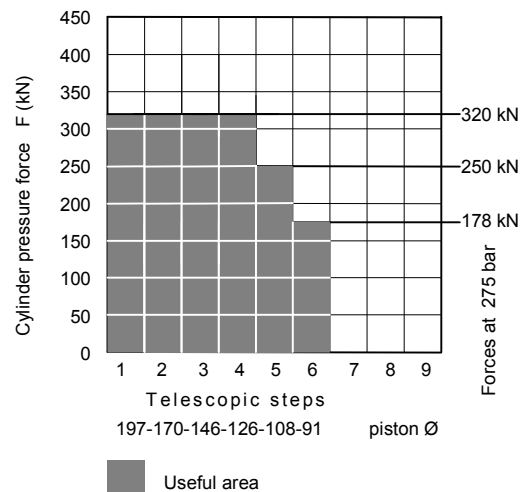
Working pressure max. 300 bar
 Number of telescopic steps 6
 Working temperature -25°C - +80°C
 Carrying force ball 68 320 kN
 Carrying force cardan VII 550 kN

VKKU-dim. ≥ RL 330/290 min. 180; max. RL₁-180+a
 Versions in 20 mm distances possible

Release valve VB16-2 VII VB16-4 VII
 VB20-1 VII VB20-4 VII

Lubricating nipple 5 pieces, DIN 71412
 Standard connection A1= M27x2 (M33x2)
 Special connection A2, A3= M27x2 (M33x2)

Load diagram



Types and dimensions

Type	Small piston Ø Version	Total stroke	Number of steps Cardan ball head	RL mm	Norm VKKU	Volume dm ³	Weight kg	a mm	Stroke of the individual telescopic steps								
									1	2	3	4	5	6	7	8	
NHSD91V-1316-6VKVIIKU				330 / 290		21,6	205	42	214	228	228	242	202	202			
NHSD91V-1506-6VKVIIKU				360 / 330		24,7	214	52	244	258	258	272	232	232			
NHSD91V-1816-6VKVIIKU				420 / 360		30,1	228	30	304	318	318	332	272	272			
NHSD91V-2176-6VKVIIKU				480 / 420		35,8	244	30	364	378	378	392	332	332			
NHSD91V-2511-6VKVIIKU				535 / 480		41,5	259	35	419	433	433	447	387	392			
NHSD91V-2841-6VKVIIKU				590 / 535		46,8	274	35	474	488	488	502	442	447			
NHSD91V-3146-6VKVIIKU				640 / 590		51,8	288	40	524	538	538	552	492	502			

Subject to modifications

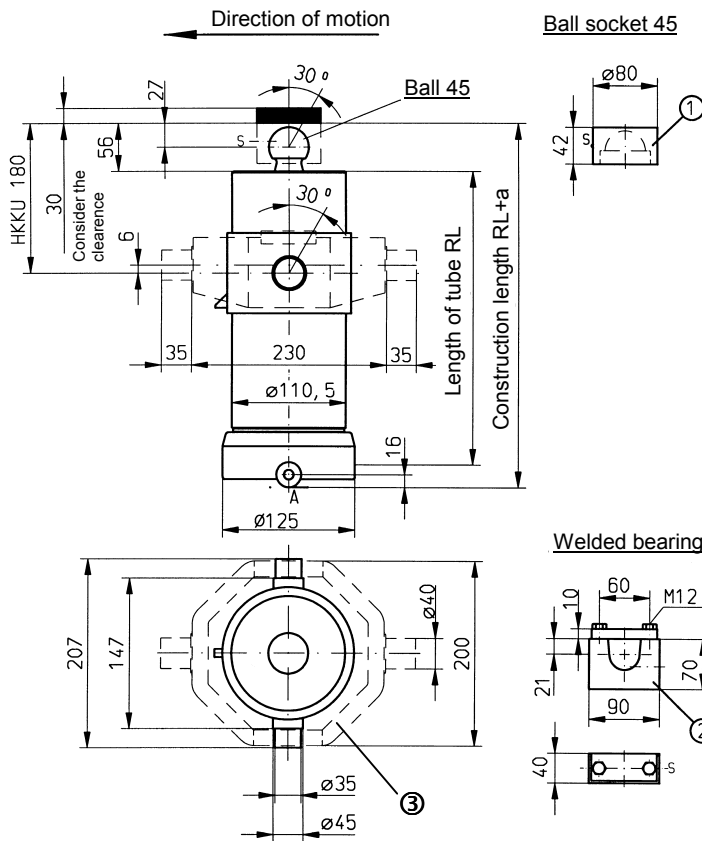
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Neumeister Hydraulik

Tipping weight 50 kN (5 to)

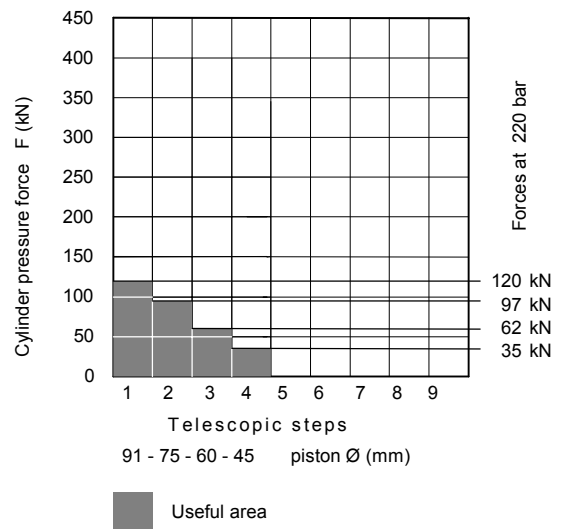


Technical data

Working pressure	max. 220 bar
Number of telescopic steps	4
Working temperature	-25°C - +80°C
Carrying force cardan 45	120 kN
Lubricating nipple	5 pieces, DIN 71412
Special connection	A= M16x1,5

Applicable for tubes with a length $RL \leq 360$:
Only for use in combination with the full cardan, pos. 3 !!!

Load diagram



The following parts are to ordered separately:

Pos	Piece	Denomination	Order Nr.	Weight
1	1	Ball socket 45	506-10000	0,8 kg
2	2	Welded bearing	508-10000	1,8 kg / pc.
3	1	Full cardan	500-10060	9,1 kg

Types and dimensions

Type	Small piston \varnothing	Total stroke	Number of steps semi cardan ball head	RL mm	Norm HKKU	Volume dm^3	Weight kg	a mm	Stroke of the individual telescopic steps									
									1	2	3	4	5	6	7	8	9	
NHSDL45- 708-4HKKU				245	180	2,74	19,2	86	180	172	176	180						
NHSDL45- 788-4HKKU				265	180	3,05	20,4	86	200	192	196	200						
NHSDL45-1028-4HKKU				325	180	4,00	24,3	86	260	252	256	260						

Subject to modifications

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