

Characteristics

Unloading valves series UR*E consist of a mechanical pilot stage and a slip-in cartridge main stage. These valves are used to unload a circuit at low pressure. The mechanically adjustable pressure signal to unload the main stage has to be applied to port X. The nominal pressure differential between opening and closing is 15 %.

In addition the series US*E is vented by electrical operation. The UR*E/US*E model codes embrace the pilot valves, covers and cartridges that are also offered as separate items. See combination examples for details.

Features

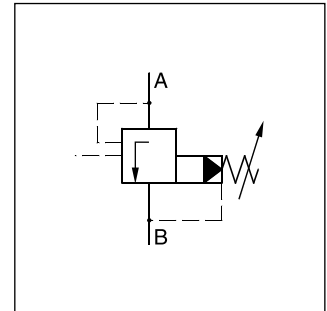
- Pilot operated unloading valve
- Cavity and mounting pattern according to ISO 7368
- 4 pressure stages
- 2 switching types (series US*E)
- 2 adjustment modes
 - Hand knob
 - Acorn nut with lead seal
- 6 sizes NG16 to NG63

Note

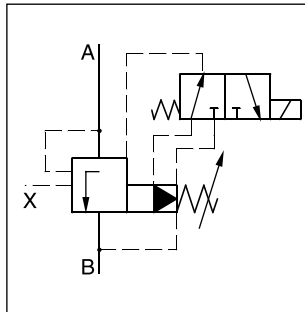
Port X only usable for remote vent function



US25E



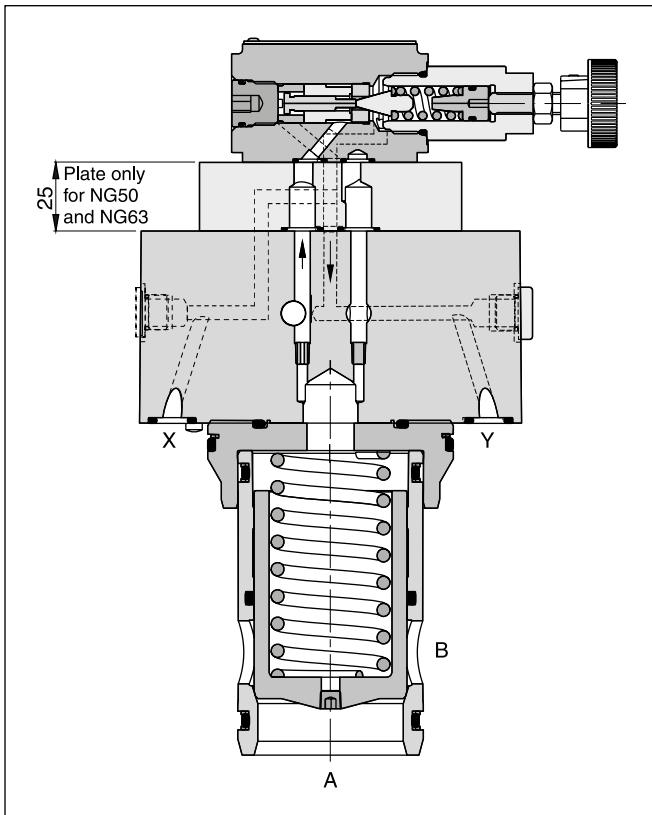
UR*E



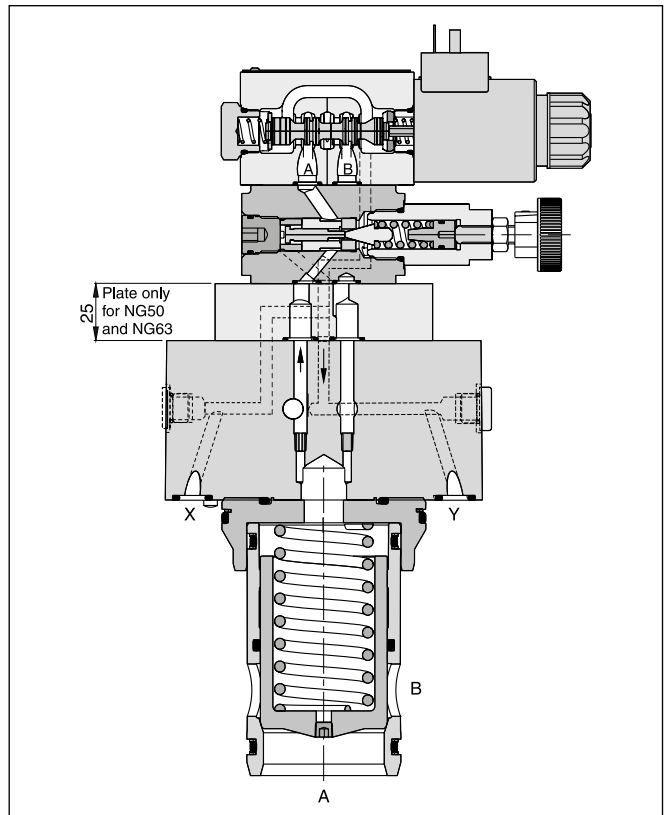
US*E

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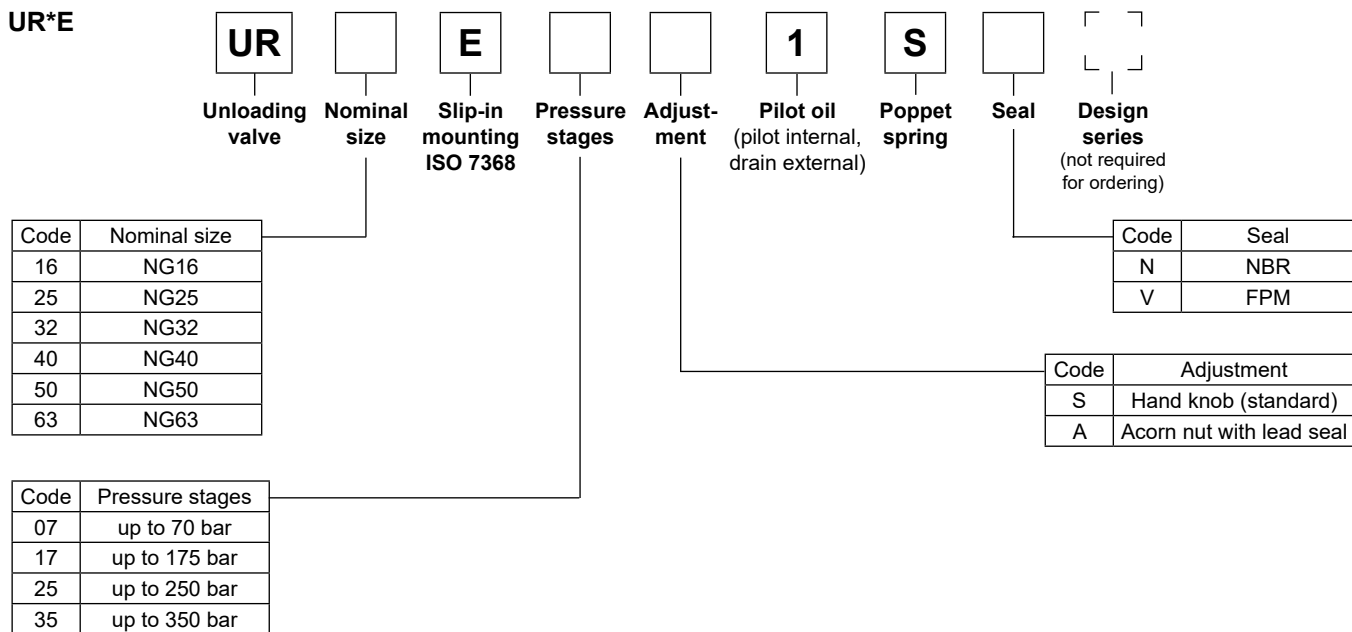
UR*E



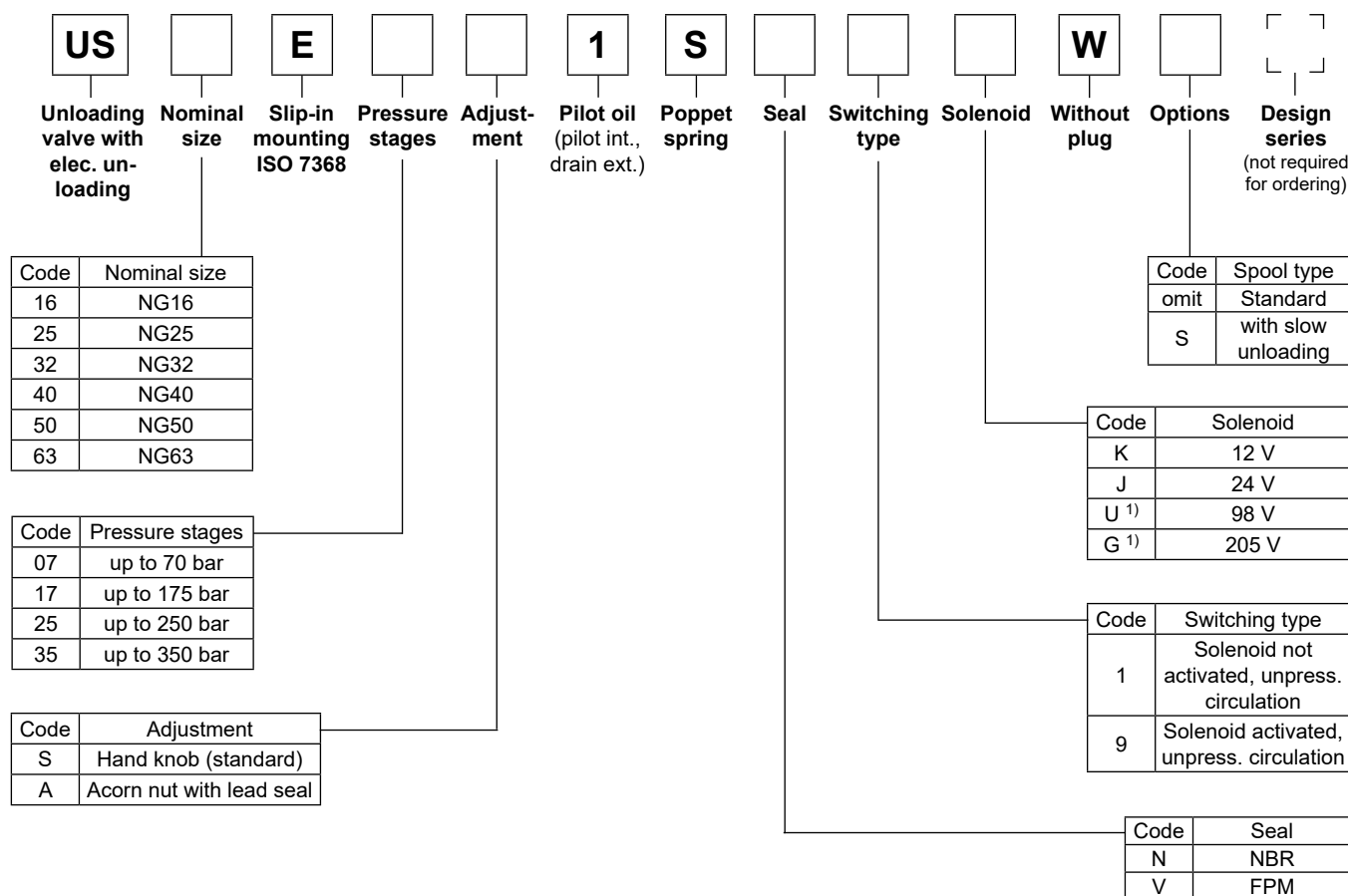
US*E



UR*E



US*E



¹⁾ To be used in combination with rectifier plugs at 120 VAC / 230 VAC power supply.

UR*E

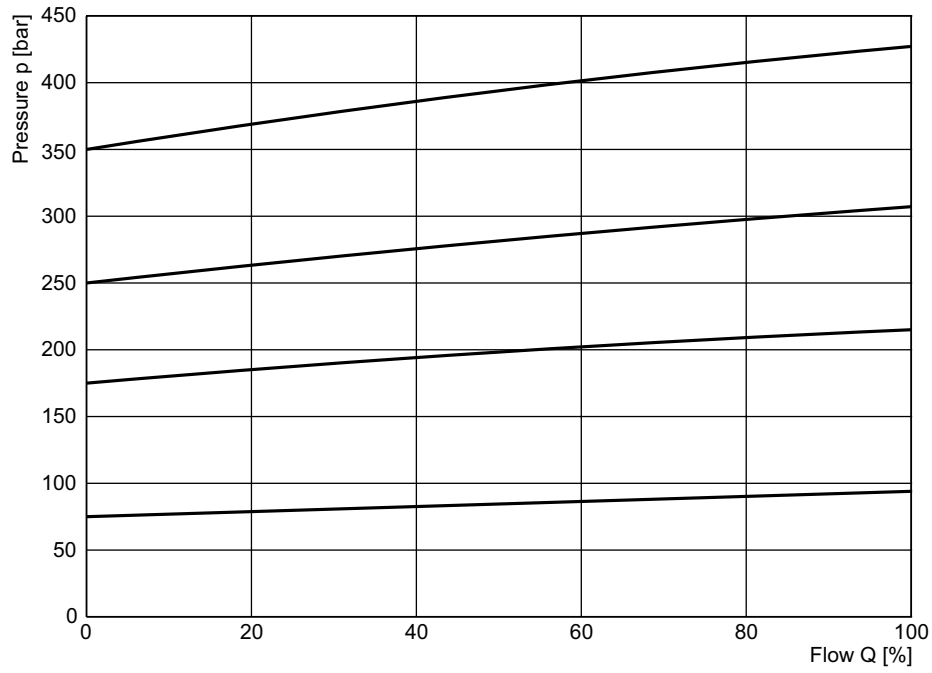
General							
Nominal size		NG16	NG25	NG32	NG40	NG50	NG63
Interface	Slip-in mounting acc. ISO 7368						
Mounting position	as desired, horizontal mounting preferred						
Ambient temperature	[°C]	-20...+60					
MTTF _D value	[years]	75					
Weight	[kg]	2.2	3.5	4.9	8.0	13.7	22.8
Hydraulic							
Max. operating pressure	[bar]	Ports A and X up to 350, Ports B and Y 30					
Pressure stages	[bar]	75, 175, 250, 350					
Pressure differential, nominal	[%]	15					
Nominal flow	[l/min]	220	500	950	1400	2300	4000
Fluid	Hydraulic oil according to DIN 51524						
Fluid temperature	[°C]	-20...+70 (NBR: -25...+70)					
Viscosity, permitted	[cSt] / [mm ² /s]	20...400					
Viscosity, recommended	[cSt] / [mm ² /s]	30...80					
Filtration	ISO 4406; 18/16/13						

US*E

General							
Nominal size		NG16	NG25	NG32	NG40	NG50	NG63
Interface	Slip-in mounting acc. ISO 7368						
Mounting position	as desired, horizontal mounting preferred						
Ambient temperature	[°C]	-20...+60					
MTTF _D value	[years]	75					
Weight	[kg]	2.7	5.2	6.4	9.5	15.2	24.3
Hydraulic							
Max. operating pressure	[bar]	Ports A and X 350, ports B and Y 30					
Pressure stages	[bar]	75, 175, 250, 350					
Pressure differential, nominal	[%]	15					
Nominal flow	[l/min]	220	500	950	1400	2300	4000
Fluid	Hydraulic oil according to DIN 51524						
Fluid temperature	[°C]	-20...+70 (NBR: -25...+70)					
Viscosity, permitted	[cSt] / [mm ² /s]	20...400					
Viscosity, recommended	[cSt] / [mm ² /s]	30...80					
Filtration	ISO 4406; 18/16/13						
Electrical (solenoid)							
Duty ratio	100 % ED; CAUTION: coil temperature up to 150 °C possible						
Protection class	IP65 in accordance with EN 60529 (with correctly mounted plug-in connector)						
	Code						
Supply voltage	[V]	K	J	U	G		
Tolerance supply voltage	[%]	12 V =	24 V =	98 V =	205 V =		
Current consumption	[A]	±10	±10	±10	±10		
Power consumption	[W]	2.72	1.29	0.33	0.13		
Solenoid connection	Connector as per EN175301-803, solenoid identification as per ISO 9461						
Wiring min.	[mm ²]	3 x 1.5 recommended					
Wiring length max.	[m]	50 recommended					

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p/Q performance curve ¹⁾



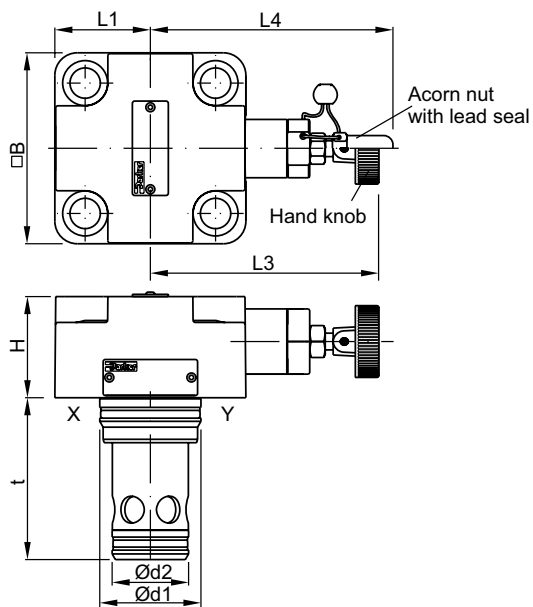
All characteristic curves measured with HLP46 at 50 °C.

¹⁾ The performance curves are measured with external drain.
For internal drain the tank pressure has to be added to curve.

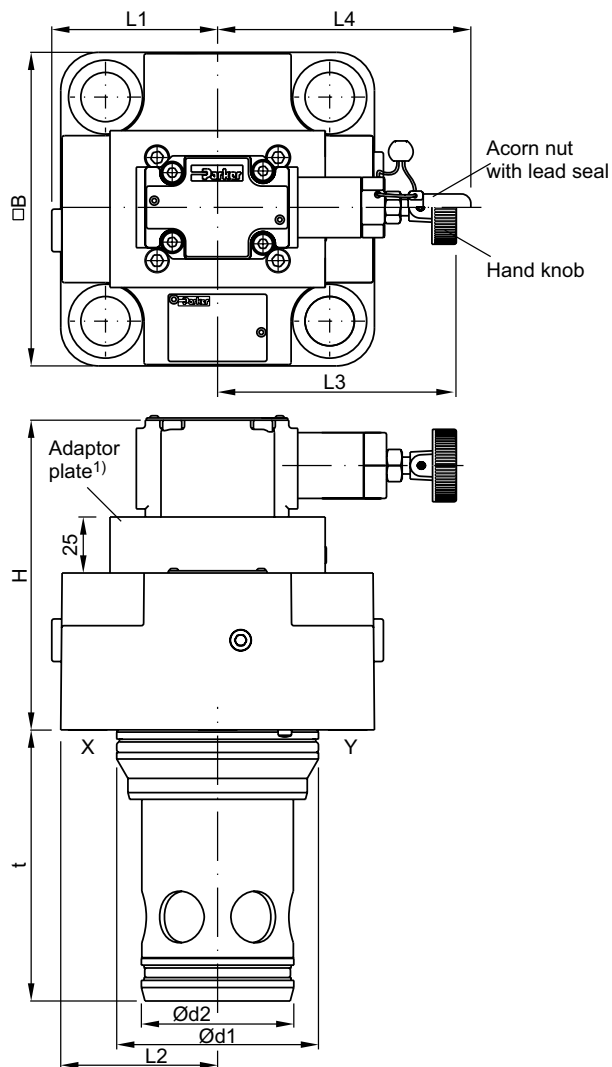
Dimensions

Dimensions UR*E

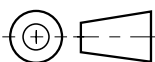
NG16 to NG32





NG40 to NG63 ¹⁾



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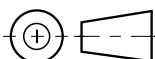
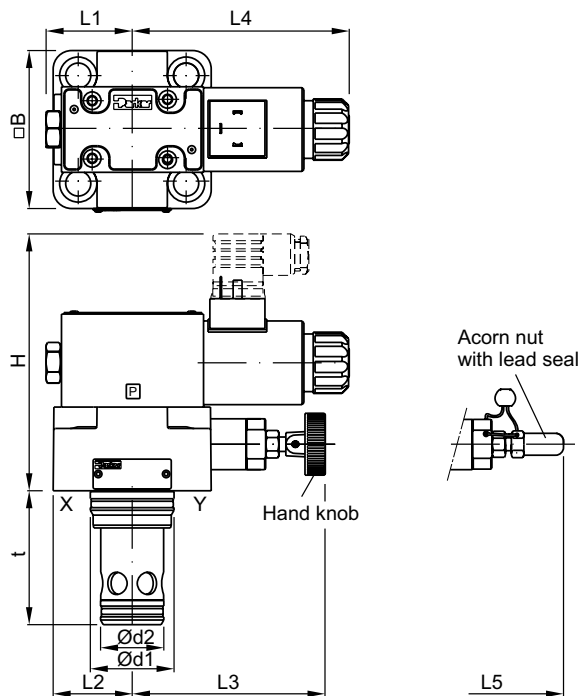
NG	H	B	L1	L2	L3	L4	d1	d2	t
16	40	65 ²⁾	32.5	—	114	117	32	25	56
25	47	85	42.5	—	102	106	45	34	71
32	50	102	51	—	95	97.5	60	45	85
40	106	125	62.5	66.5	106	108	75	55	105
50	141	140	70	74	106	108	90	68	121
63	155	180	90	94	106	108	120	90	155

NG	Kit	 ISO 4762-12.9	 [Nm]	Kit	
				NBR	FPM
16	BK414	4 x M8x40	31.8	SK-R16EN	SK-R16EV
25	BK391	4 x M12x50	108	SK-R25EN	SK-R25EV
32	BK415	4 x M16x55	264	SK-R32EN	SK-R32EV
40	BK416	4 x M20x70	517	SK-R40EN	SK-R40EV
50	BK417	4 x M20x75	517	SK-R50EN	SK-R50EV
63	BK418	4x M30x100	1775	SK-R63EN	SK-R63EV

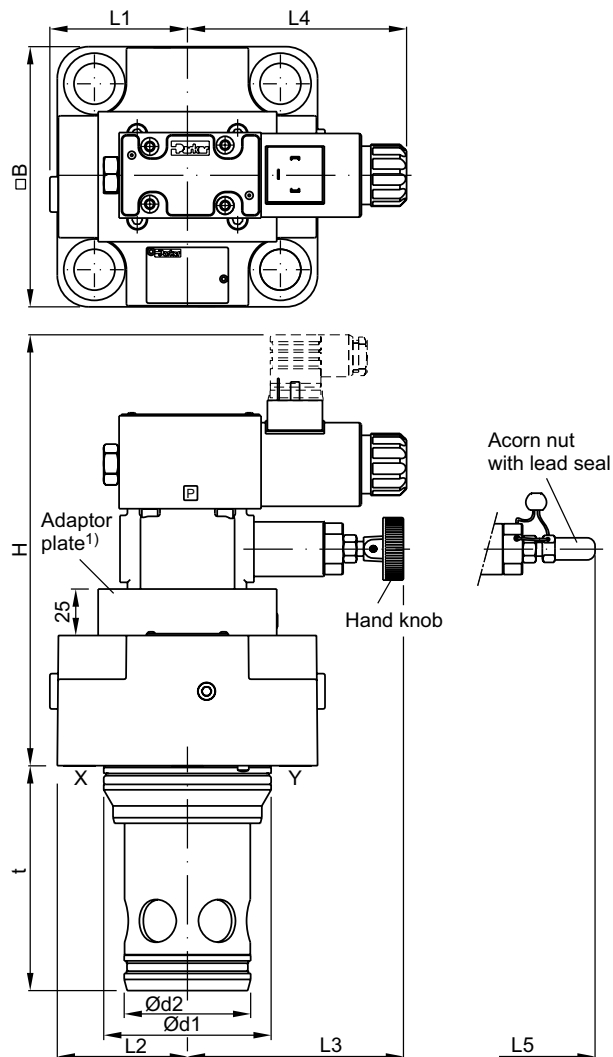
¹⁾ NG40 without adaptor plate.
²⁾ Width 79 mm.

Dimensions US*E

NG16 to NG32



NG40 to NG63 ¹⁾



NG	H	B	L1	L2	L3	L4	L5	d1	d2	t
16	40	65 ²⁾	32	32.5	114	127.5	117	32	25	56
25	47	85	46	42.5	102	117	106	45	34	71
32	50	102	51	51	95	112.5	97.5	60	45	85
40	106	125	66	62.5	106	114	108	75	55	105
50	141	140	74	70	106	114	108	90	68	121
63	155	180	94	90	106	114	108	120	90	155

NG	Kit	 ISO 4762-12.9	 [Nm]	Kit	
				NBR	FPM
16	BK414	4 x M8x40	31.8	SK-RS16EN	SK-RS16EV
25	BK391	4 x M12x50	108	SK-RS25EN	SK-RS25EV
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40	BK416	4 x M20x70	517	SK-RS40EN	SK-RS40EV
50	BK417	4 x M20x75	517	SK-RS50EN	SK-RS50EV
63	BK418	4 x M30x100	1775	SK-RS63EN	SK-RS63EV

¹⁾ NG40 without adaptor plate.

²⁾ Width 79 mm.