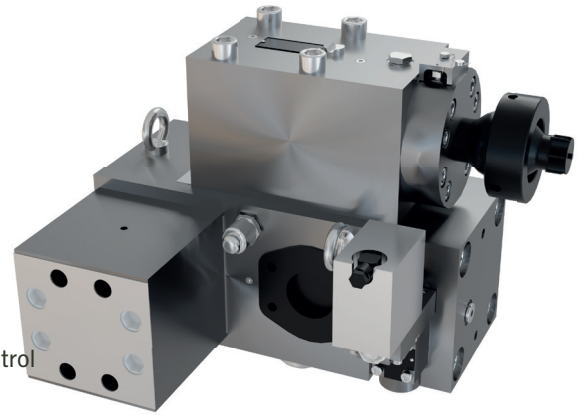


Pump Unloader Control

DN16 - DN65, PN420

Features

- Electro- hydraulically actuated valve
- Pump unloader control consisting of 2/2-way valve, non-return valve and pre-control valve with connection plate and filter
- The valve seats seal as hermetically sealed and prevent internal leaks
- Internal pilot pressure (no external pressure source required)
- All parts are made of corrosion-resistant materials and are easily replaceable
- flange design for direct mounting to pumps or separate blocks



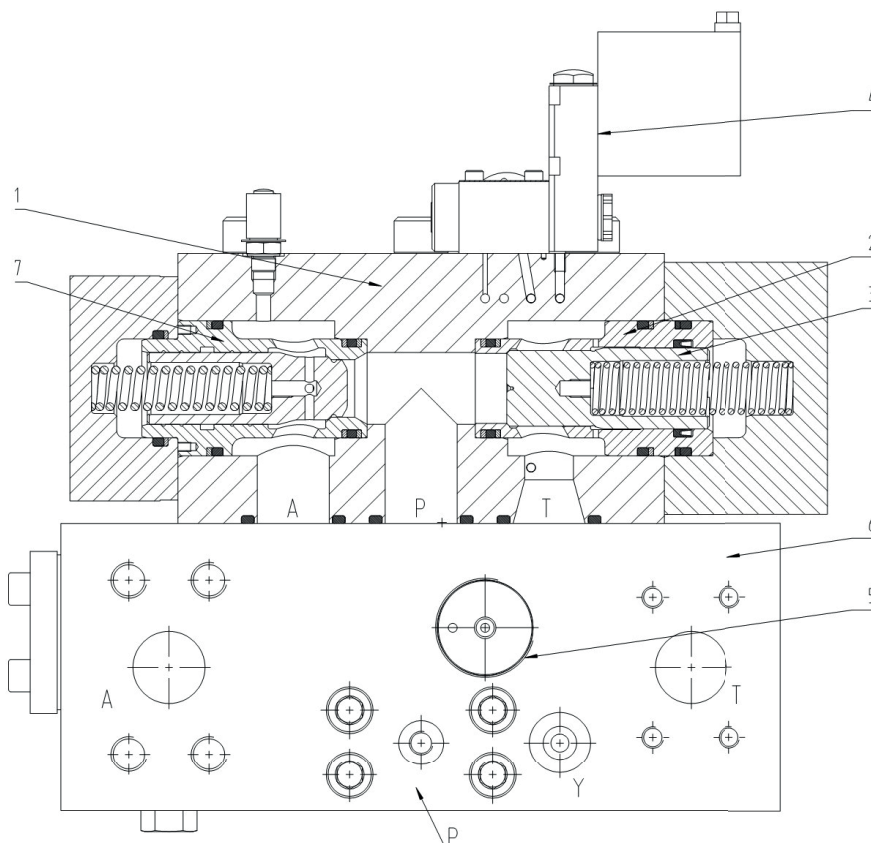
Control function

The pump bypass valve (1), the pilot valve (4) and the connection plate (6) form a valve unit for controlling a pump in a pressure supply system. Depending on the system pressure, the valve controls the work cycle of the pump, „pressure build-up“, „load accumulator“ or „pressure less circulation“. The P port is connected to the pressure port of the pump, the A port to the pressure line of the system and the T port to the pressure less tank.

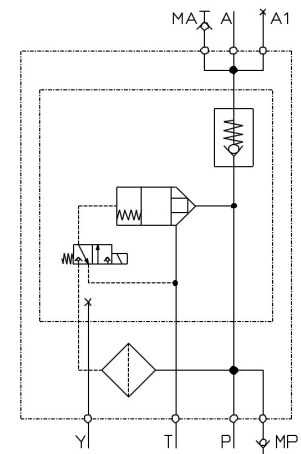
The flow of the pump enters the pump bypass valve at the P connection. The pump flow is connected to the pressure port of the pilot valve (4) via the filter (5). In the unload position, the pressure on the control piston (3) of the 2/2-way valve (2) on the control side is discharged, the 2/2-way valve is open, and the pump flow is discharged from P to T without pressure.

By switching over the pilot valve (4), the piston (3) is pressurized on the control side and the 2/2-way valve (2) closes and blocks the connection P to T. At the same time, the check valve (7) opens and connects the lines P to A. The pump flow is supplied via the A port, to the system.

Valve group for the pump control



Symbol



Technical data

measured with HFA medium 97/3%, at 20°C

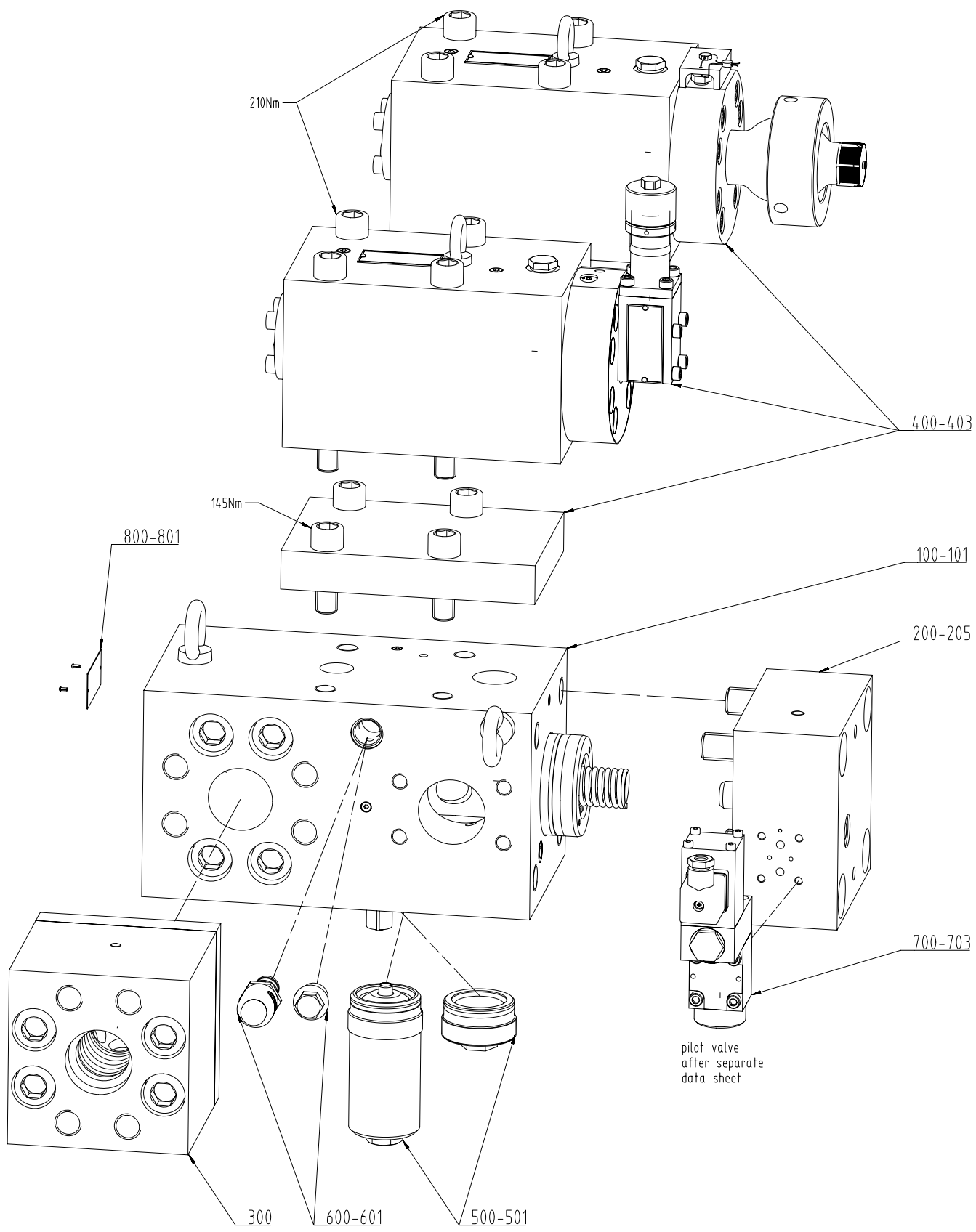
General	
Weight	see Order information
Installation position	any
Ambient temperature	-10 to 50°C (hydraulic fluids, heed standard requirements)
Material Valve parts	Stainless steel
Material Seals	NBR, PTFE, POM
Hydraulic	
Pumpenumlaufventil H30, H300	
Hydraulic pressure connector P, A, A1	≤ 420 bar
Hydraulic pressure connector MP, MA	≤ 420 bar
Hydraulic pressure connector Y	≤ 2 bar
Hydraulic pressure connector	≤ 2 bar
Direction of flow	P→T, P→A
Pressure fluid	Water, HFA
- Medium - Temperature range	5 to 40°C
- Medium - Quality	see Hauhinco media requirement, water, HFA
- min. filter fineness connection A, B	Filter fineness 100µm
- min. filter fineness connection X	Filter fineness 25µm (control pcb with filter inserts)
Pressure fluid	Mineral oil HLP according to DIN51624-2
- Medium - Temperature range	5 to 50°C
- Medium - Quality	Cleanliness class -/19/16 according to ISO 4406
max. switching rate of the valve unit	0,2 Hz
Note: The maximum decrease volume flow of the consumer and the size of the pressure accumulator control the switching rate of the pump circulation control system.	
Use of other pressure fluids on request.	

The latest generation of Hauhinco pump circulation controls has a modular design and can be individually assembled as a construction kit.

See example drawing number 6602632, on the following page.

All other pump controls are available on request.

Type code
PU40-E-3I
PU40-E-3I
PU40-E-3I
PU40-E-3I



Position	item No.
100	6602332
101	6603188
200	6602337
201	6603190
202	6603191
203	6603192
204	6602349
205	6603189
300	6602436
400	6167861
401	6601272
402	
403	
500	6531547
501	6602597
600	2356060
601	2179547
700	6269591
701	6545769
702	6545807
703	6545750
800	6602583
801	2061813

pilot valve
after separate
data sheet

Assembly instruction:

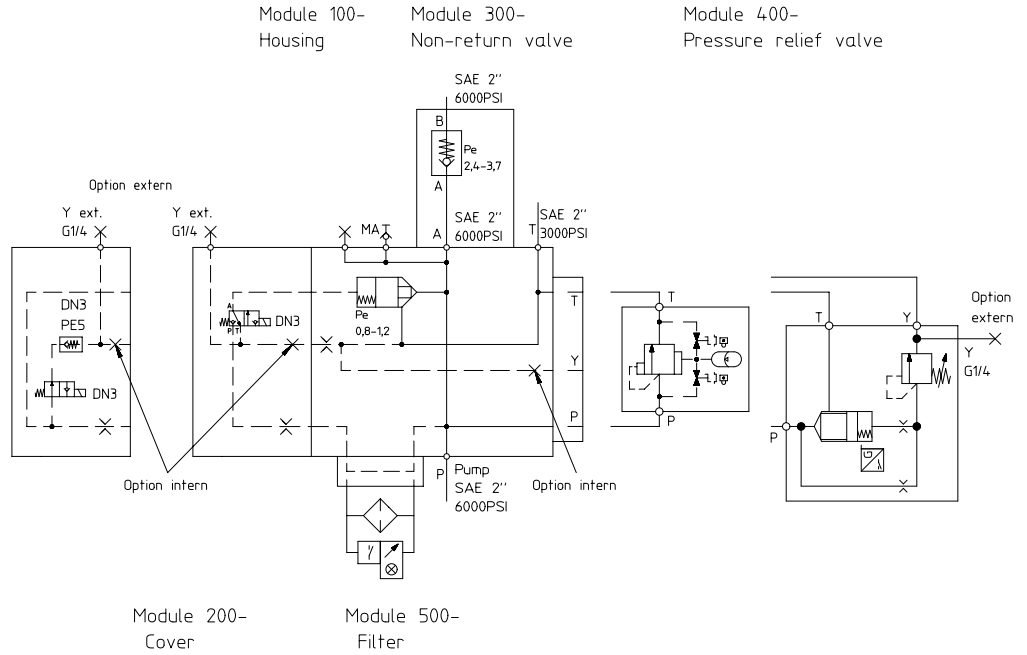
Pos.	tightening torque MA
100-101	290 Nm
200-205	420 Nm
300	420 Nm
400, 402, 403	210 Nm
401	145 Nm
500-501	200 Nm
600-602	90 Nm
700-703	see Pilot valve

screw thread and head rest
oiled or greased.

* at Pos 400 pres
Item 101 housing

Ausgabe issue	Anzahl quantity	Änderung/revision	Datum date	Name
0				

Pump unloader control		
	Item no.	Weight [kg]
-R-S-F-V0-33	6602810	113
-R-S-F-V0-32	6603243	113
-R-S-F-V0-31	6603328	115
-O-S-F-V0-32	6603389	96



Example:

PU40 I 3I R S F O 32

Quantity	Module	Variant	Explanation	Type code
1	Housing	Y intern	Leakage pressure relief valve, Y internal	I
1	Housing	Y extern	Leakage pressure relief valve, Y extern	E
1	Cover	2/2 way	with Non-return valve, Y intern	2RI
1	Cover	2/2 way	with Non-return valve, Y extern	2RE
1	Cover	2/2 way	without Non-return valve, Y intern	2I
1	Cover	2/2 way	without Non-return valve, Y extern	2E
1	Cover	3/2 way	Y intern	3I
1	Cover	3/2 way	Y extern	3E
1	Non-return valve		with Non-return valve	R
			without Non-return valve	O
1	Pressure relief valve		Pressure relief valve with hydr. accumulator	S
1	Pressure relief valve		without Pressure relief valve	O
1	Pressure relief valve		manuel pressure relief valve, Y intern	MI
1	Pressure relief valve		manuel pressure relief valve, Y extern	ME
1	Filter		Threaded filter	F
1	Filter		without Threaded filter	O
1	Display	optical	optische Verschmutzungsanzeige	VO
1	Display		without contamination indicator	O
1	Pilot valve	3/2 Wege DN3	A-T NO, 12 VDC, ATEX	31
1	Pilot valve	3/2 Wege DN3	A-T NO, 24 VDC	32
1	Pilot valve	3/2 Wege DN3	A-T NO, 110 VDC	33
1	Pilot valve	2/2 Wege DN3	NO, 24 VDC	34
1	Typenschild			
2	Grooved pin			

sure relief valve with accumulator
assy. Y externally

Projektionsmethode 1 first angle projection method 	Fertigungsvorschriften/manufacturing instructions Oberflächen/ surfaces: DIN ISO 1502 Allgem. Toleranzen/general tolerances: DIN ISO 2768-mK	Technische Referenz/technical reference Kollmann	Werkstoff/material 1.4310	Gewicht/weight Kg	Bemerkung/notice	Matchcode 30
Weitergabe sowie Vervielfältigung dieser Zeichnung, Verwertung und Mitteilung seines Inhaltes sind verboten, soweit nicht ausdrücklich gestattet. Zuwiderhandlungen verpflichten zu Schadenersatz. Alle Rechte für den Fall der Patent-, Gebrauchsmuster- oder Geschmacksmustereintragung vorbehalten. The reproduction, distribution and utilization of this drawing as well as the communication of its contents to others without express authorization is prohibited. Offenders will be held liable for the payment of damages. All rights reserved in the event of the grant of a patent, utility model or design.		Datum/date Name Erstellt/created 10.10.22 seboldt Geprüft/checked 10.10.22 seboldt Freigegeben/released 10.10.22 kollmann	Benennung/title MODULBAUKASTEN PUST DN40 PUMPENLAUFSTEUERUNG DN40 PN420 MODUL KIT PUST DN40			
		Maßstab/scale 1:2	Zeichnungsnummer/drawing number 6602632	Version 0	Blatt/sheet 1/2	Format A1
		Ersatz für/supersedes:		Grundlage/origin		