



Brøytehydraulikk

2023-2024

 **EGIL ENG & CO. AS**
Vår kunnskap - Din trygghet

 **Jernkroken 7, Oslo**

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**BRØYTEHYDRAULIKK
MED NORHYDRAULICK RM270
FAST STEMPELPUMPE**

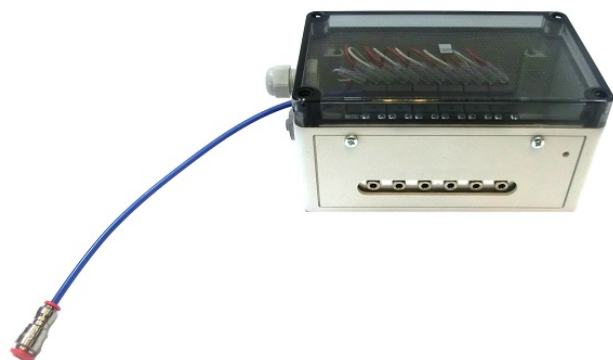
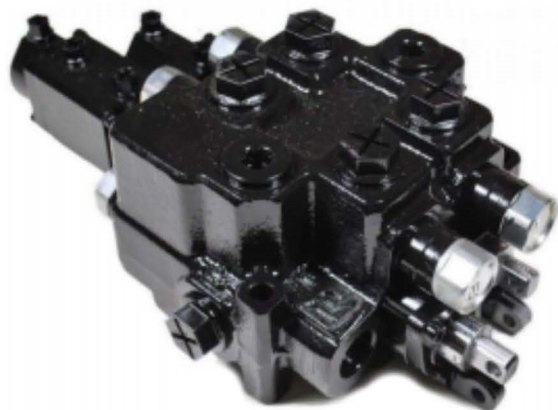
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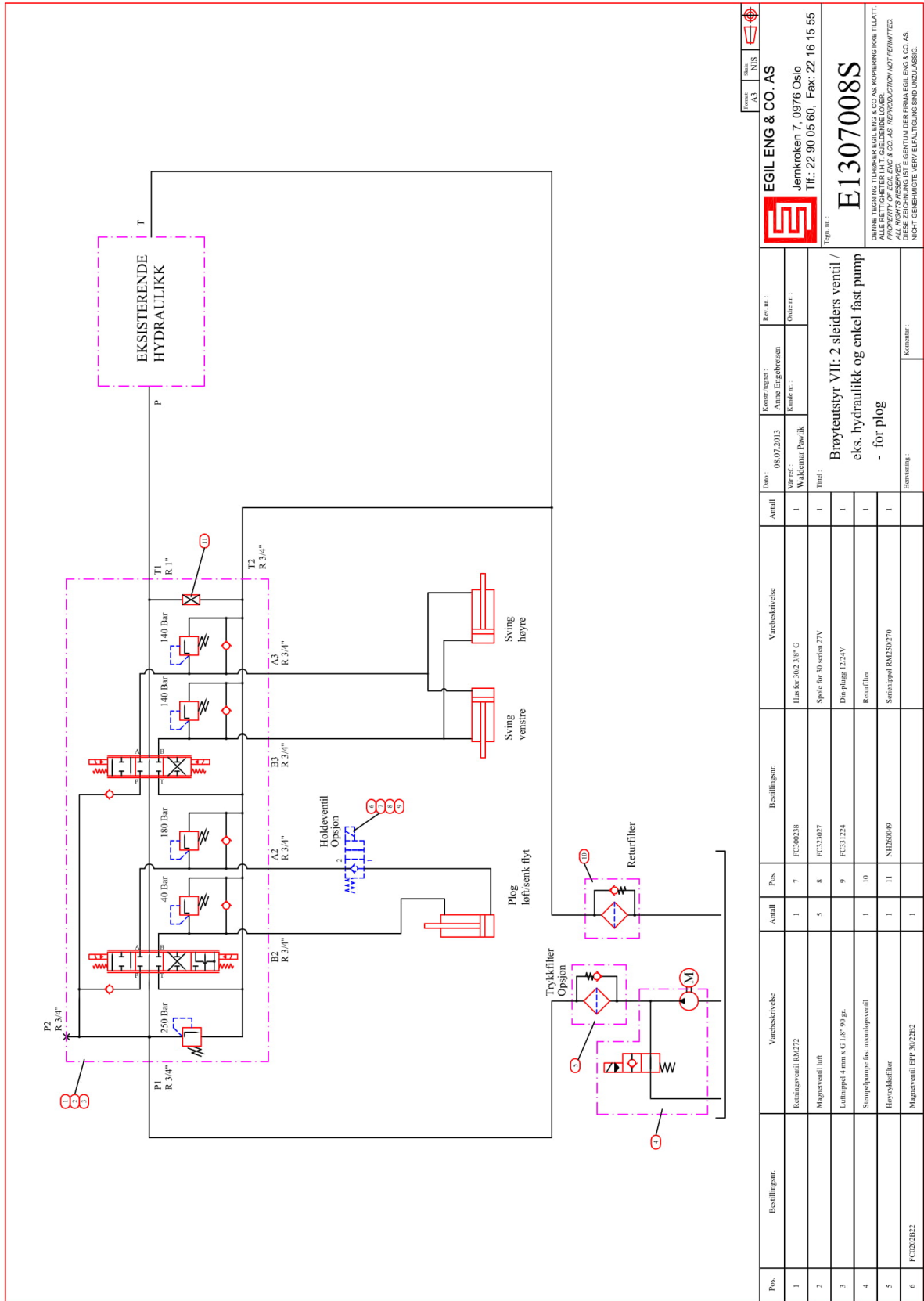
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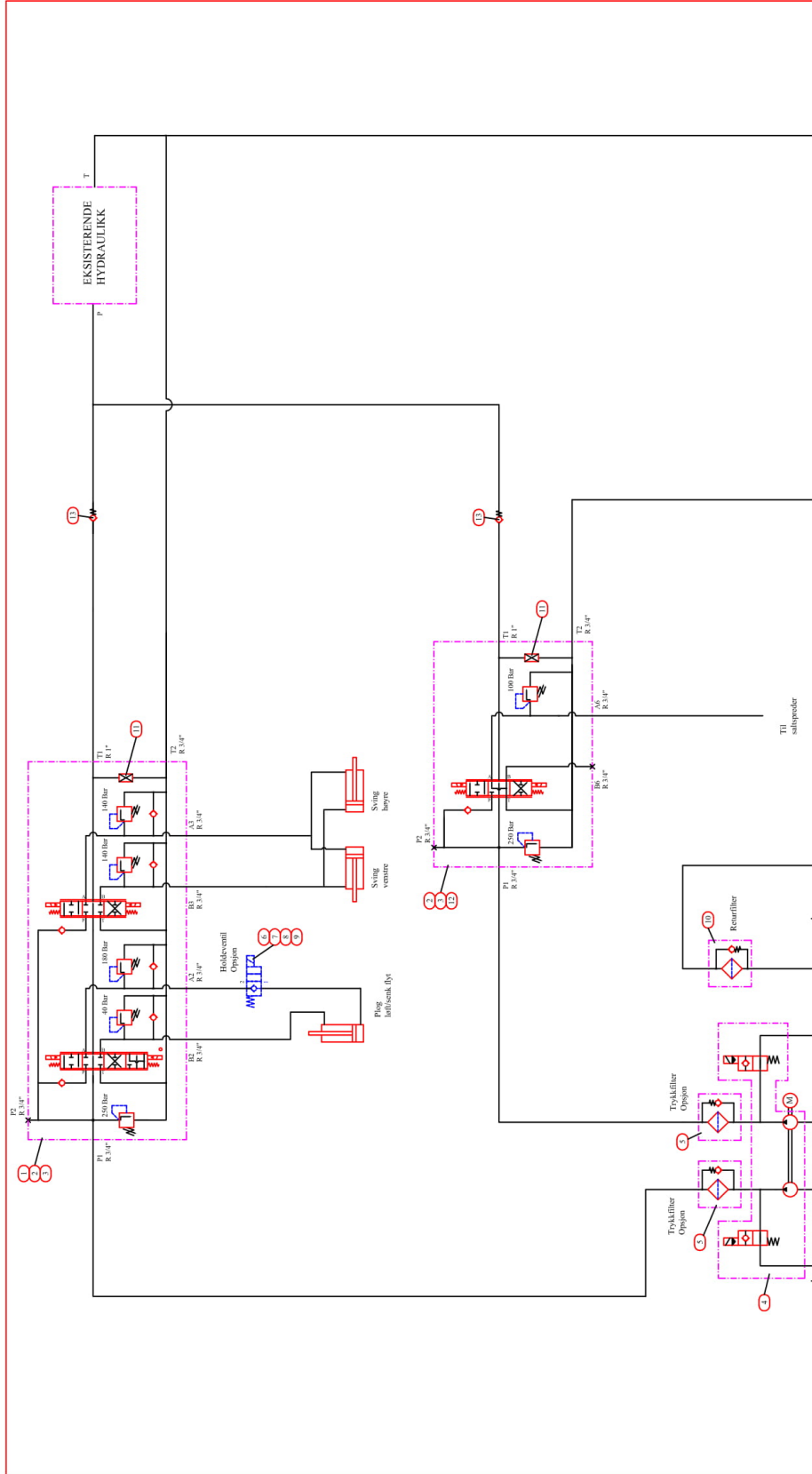


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Pos.	Bestillingssnr.	Varebeskrivelse	Antall	Pos.	Bestillingssnr.	Varebeskrivelse	Antall	Dato:	Kontr. signert:	Rev. nr.:
1		Reiningsventil RM272	1	7	FC300238	Hus for 302 3.8" G	1	06.07.2013	Arne Engelsen	
2		Magneventil luft	5	8	FC32027	Spole for 30 serien 2TV	1	06.07.2013	Waldemar Perik	06.07.2013
3		Luftrappel 4 mm x G 1/8" 90 gr.	1	9	FC31224	Din-plugg 1224V	1			
4		Stempelpumpe fast monopsventil	1	10		Returfilter	1			
5		Høytrykfilter	1	11	N1250649	Stempelpel RM250 270	1			
6	FC020282	Magneventil EPP 30/282	1							

Brøyteustyr VII: 2 sleiders ventil / eks. hydraulikk og enkel fast pump - for plog

Figur nr.: _____
Kommentar: _____



Pos.	Bestillingsnr.	Varebeskrivelse	Antall	Pos.	Bestillingsnr.	Varebeskrivelse	Antall
1	Reiningsventil RM272	Reiningsventil RM272	1	8	FC32027	Spole for 30 serien 2TV	2
2	Magneventil luft	Magneventil luft	7	9	FC33124	Diaphragm 1224V	2
3	Lufnpipel 4 mm x G 1/8" 90 gr.	Lufnpipel 4 mm x G 1/8" 90 gr.	1	10		Reinfilter	1
4	Stempelpumpe dbl. fast anslutningsventil	Stempelpumpe dbl. fast anslutningsventil	1	11	N1200049	Seriempel RM250/270	2
5	Høytrykkløffer	Høytrykkløffer	2	12		Reiningsventil RM271	1
6	Magneventil EPP 30/23R2	Magneventil EPP 30/23R2	2	13		Tilbakestøpsventil	2
7	FC300238	Hex for 302 3/8" G	2				


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Fig.nr.: **E1307009S**
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Kontr. signet: **Atne Engseth**
 Dato: **26.06.2013**
 Utgitt av: **Waldemar Pasvik**
 Rev. nr.:
 Utgitt av:

Fig.nr.: **E1307009S**
Brøyteutsyr VIII: 2+1 sleiders ventil/ eks. hydraulikk og dbl. fast pump
- for plog + saltspreder

Finst:
 1 Reinfilter
 2 Seriempel RM250/270
 1 Reiningsventil RM271
 2 Tilbakestøpsventil
 Husning:

**BRØYTEHYDRAULIKK MED
SAUER DANFOSS PVG 32 VENTIL
FOR VARIABLE PUMPE**

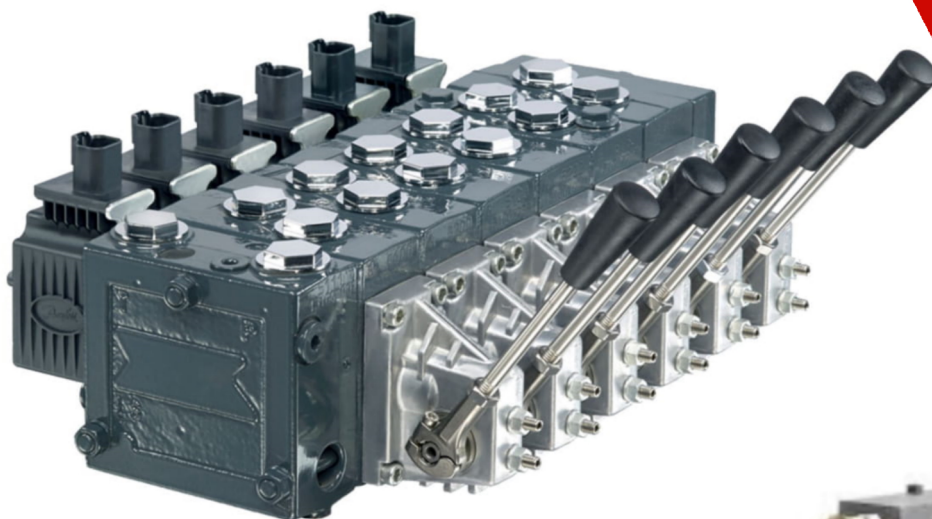
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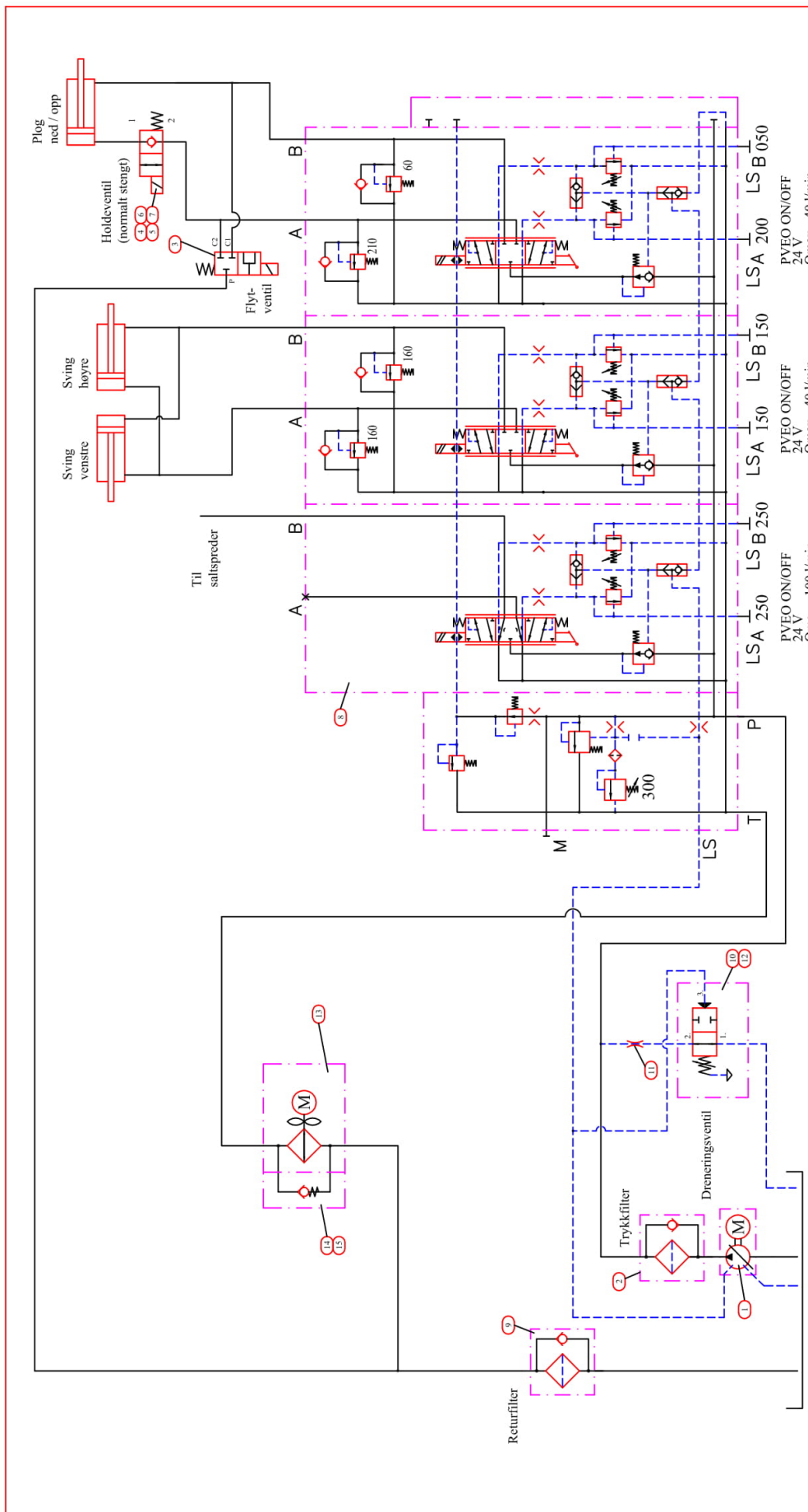
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Pos.	Bestillingnr.	Varebeskrivelse	Antall	Pos.	Bestillingnr.	Varebeskrivelse	Antall
1		Stempel-pumpe variabel	1	9		Returfilter	1
2	FV5080224	Høytrykfilter	1	10	FC190501	Skjultventil 200min VDT 20/32 01 UN	1
3	FV5080224	Veilgeventil 3/2 m/ØM 24VDC	1	11	AM7/637	Aranskippl 3,8x3,8"m/m til 1mm hull	1
4	FC0202022	Servventil NC, EPP 30/2302	1	12	FC300538	Itus for 20/3 3/8" G	1
5	FC300238	Itus for 30/2 3/8" G	1	13		Oljefilter SCM	1
6	FC323027	Spole for 30 serien 27V	1	14		Tilbakelegventil	1
7	FC311224	Dir-plugg 1/2-24V	2	15		Fjer	1
8		Proporsjonalventil PVG32	1				


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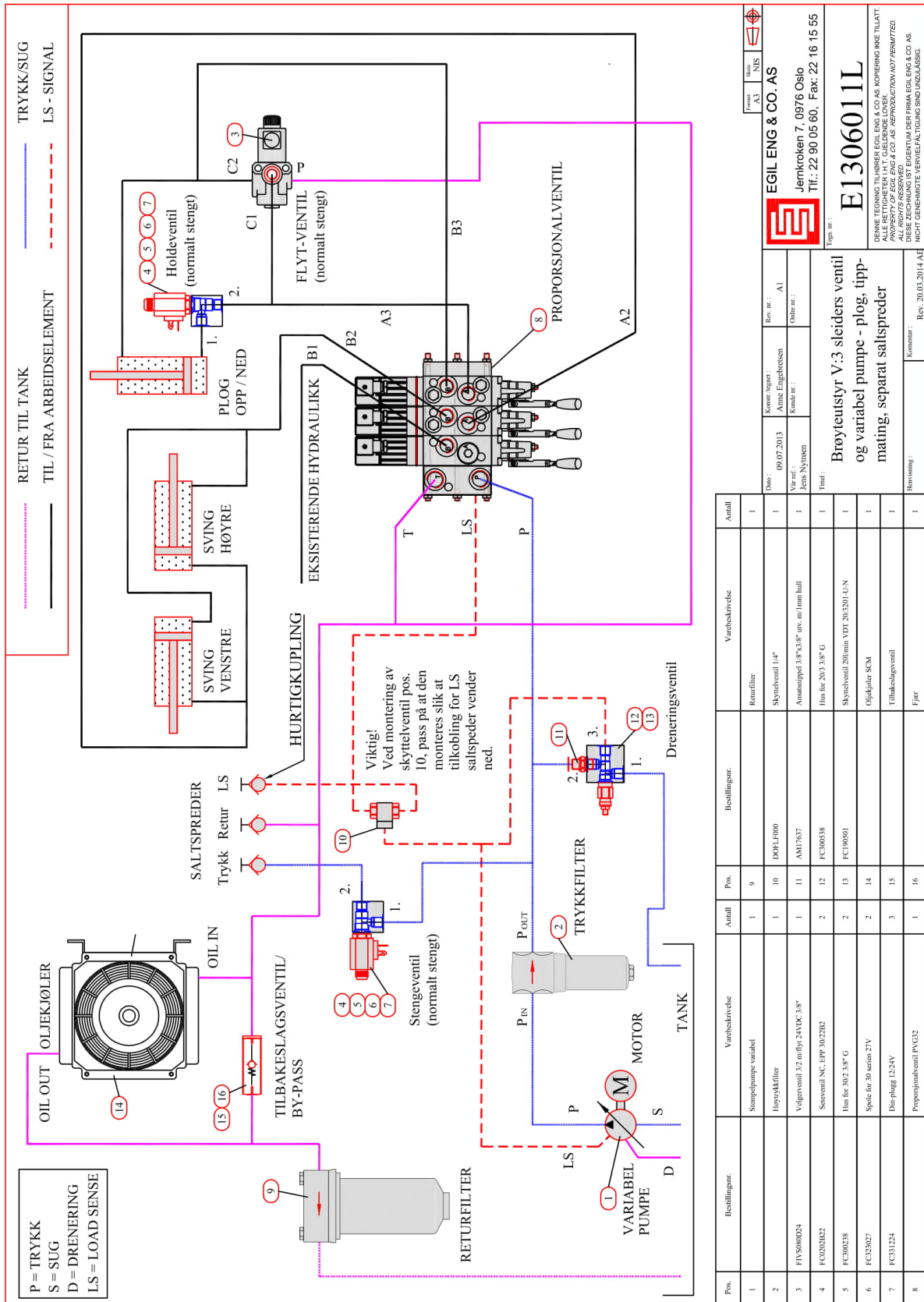
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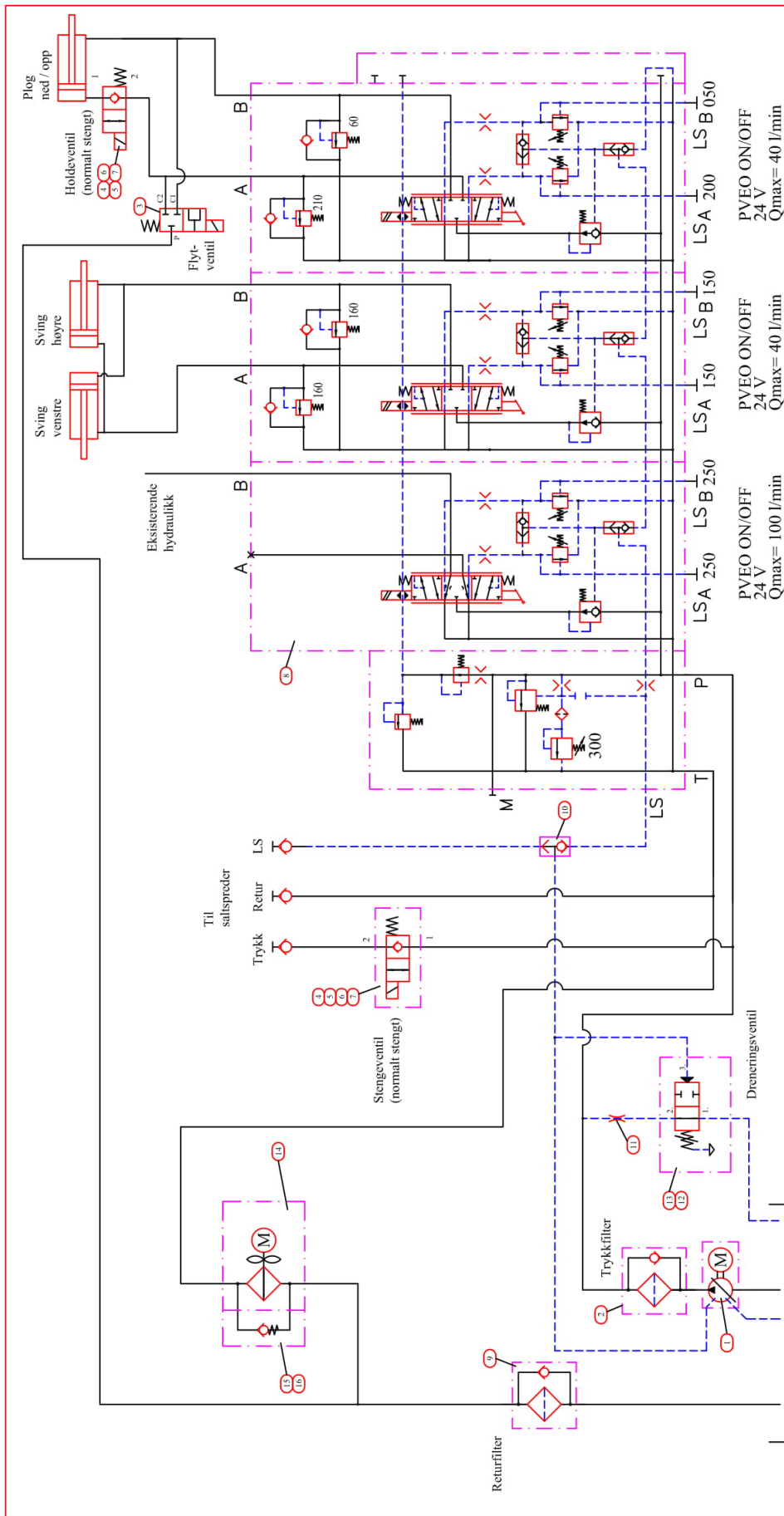
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Brøyteutstyr IV:3 sleiders ventil
 og variabel pumpe
 - plog, saltspreder
 Kommentar: Rev. 21.03.2014 AE

Variant med 3 sleiders ventil plog og tippmating (separat saltspreder)

I dette tilfellet er variabel pumpe koblet direkte til saltspredersentral (så lenge er den utstyrt med LS funksjon).





Pos.	Bestillingnr.	Varebeskrivelse	Antall	Pos.	Bestillingnr.	Varebeskrivelse	Antall
1		Stempelpumpe variabel	1	9		Returfilter	1
2	FV5080D24	Høytrykfilter	1	10	DOELF000	Skyteventil 1/4"	1
3	FV5080D24	Veigeventil 3/2 m(β) 24VDC	1	11	AM17637	Ansnappel 3/8" 5/8" osv. m 1mm hull	1
4	FC0020B2	Servoventil NC, FPP 30/20B2	2	12	FC300538	Hus for 20/3 3/8" G	1
5	FC300238	Hus for 30/2 3/8" G	2	13	FC190801	Skyteventil 200/min VDT 2032 01 U.N	1
6	FC32027	Spole for 30 minen 2TV	2	14		Objektive SCM	1
7	FC31324	Dir-pløge 1/2 24V	3	15		Tilbakeventil	1
8		Proportionalventil PVG32	1	16		Filer	1

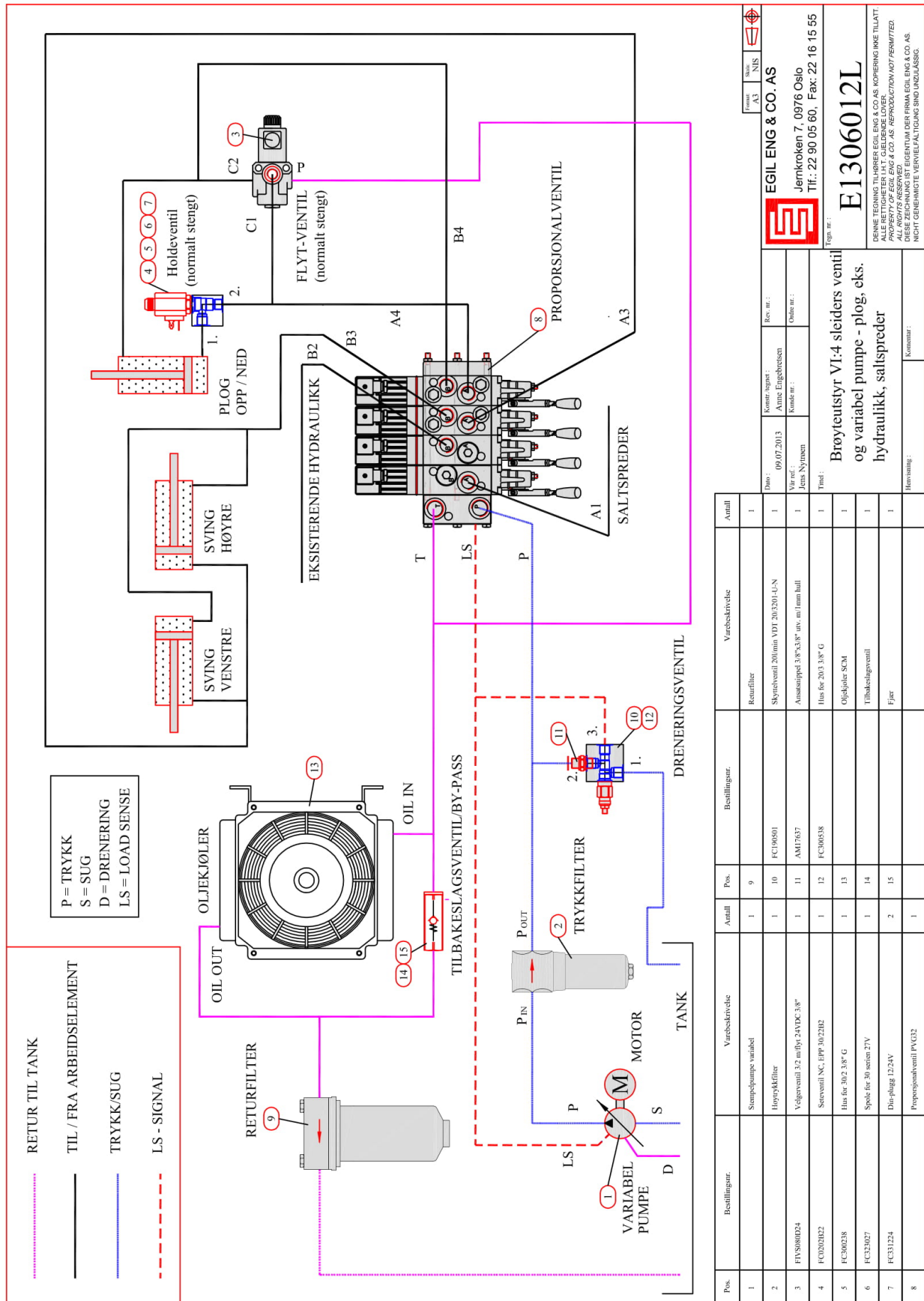
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Brøyteutstyr V.3 sleiders ventil
 og variabel pumpe - plog, eksl.
 hydraulikk, separat salpspreder

Rev. nr.: AI
 Dato: 26.06.2013
 Konstr. ingeniør: Arne Engbrethen
 Var. ref.: Waldemar Pawlik
 Kilde nr.:
 Tittel:
 Kommanr.: Rev. 21.03.2014 AE

Variant med 4 sliders ventil plog, tippmating og saltspreder



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Fig. nr.:
 Broøytestyr VI:4 sliders ventil
 og variabel pumpe - plog, eks.
 hydraulikk, saltspreder

Dato: 09.07.2013
 Konstr. laget: Aime Engbrekken
 Vår ref.: Jens Nytrøen
 Rev. nr.:
 Utg nr.:

Bestillingnr. Varebeskrivelse Antall Pos. Bestillingnr. Varebeskrivelse Antall



PVG 32 Proportional Valve Specification Module Selection Chart

PVB, basic valves

Code no. 157B....	No facilities for shock valves A and B		Facilities for shock valves A and B	
	G 1/2	7/8 - 14 UNF	G 1/2	7/8 - 14 UNF
Without compensator /check valve	6000	6400	6030	6430
With check valve	6100	6500	6130	6530
With check valve and LS _{A/B} shuttle valve	-	-	6136	6536
With compensator valve	6200	6600	6230	6630
With damped compensator valve	6206	-	6236	-
With compensator valve, LS _{A/B} relief valve and LS _{A/B} shuttle valve	6203	6603	6233	6633
With damped compensator valve, LS _{A/B} relief valve and LS _{A/B} shuttle valve	6208	-	6238	-
Weight kg [lb]	3.1 [6.8]		3.0 [6.6]	

PVPV/M, pump side module closed center

Code no. 157B....	With pilot supply for PVE			
	and without PVLP 63		and with PVLP 63	
	G1	1 5/16 - 12UNF	G1	1 5/16 - 12UNF
PVPV	5938	5911	5941	5913
PVPVM	5937	5912	5940	5914
Weight	kg [lb]		3.0 [6.6]	

PVPC, plugs

Code no. 157B....	G 1/2	1/2 in - 20	Weight kg [lb]	
External pilot supply	5400	-	0.05	0.1
External pilot supply incl. check valve	5600	5700	0.05	0.1

PVM, mechanical actuation

Standard	157B....	3171** 3172	3191* 3192*	22.5° 37.5°
Standard, with base, without arm and button	157B....	3174 3175	3194* 3195*	37.5° 22.5°
Standard, without base, arm and button	157B....	3173	3193*	-
Weight	kg [lb]	0.4 [0.9]		

* Without stop screws. ** Anodized 157B3184

End plate, PVS, PVS1

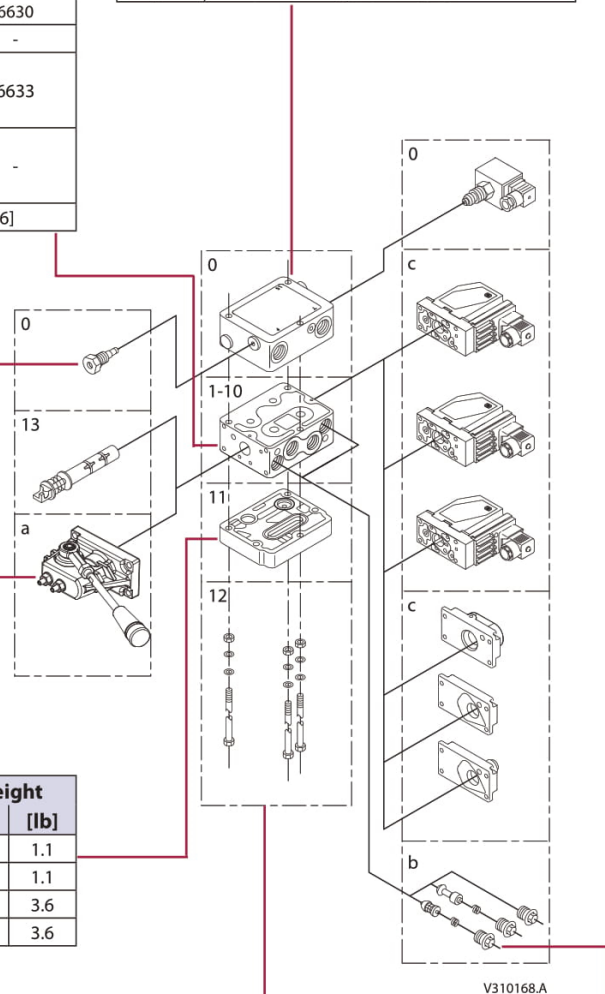
Code no. 157B....	BSP	SAE	Weight kg [lb]	
PVS, without connections	2000	2020	0.5	1.1
PVS, with LX connection G 1/8 [3/8 -24 UNF]	2011	2021	0.5	1.1
PVS1, without connections	2014	2004	1.7	3.6
PVS1, with LX connections G 1/4 [1/2 -20 UNF]	2015	2005	1.7	3.6

PVAS, assembly kit

Code no. 157B...	0	1	2	3	4	5	6	7	8	9	10	11	12
PVB's	8000	8001	8002	8003	8004	8005	8006	8007	8008	8009	8010	8061	8062
PVB + PVPVM	-	8021	8022	8023	8024	8025	8026	8027	8028	8029	8030	8081	8082
Weight kg [lb]	0.1 [0.2]	0.15 [0.3]	0.25 [0.6]	0.30 [0.7]	0.40 [0.9]	0.45 [1.0]	0.50 [1.1]	0.60 [1.3]	0.65 [1.4]	0.70 [1.6]	0.80 [1.7]	0.85 [1.8]	0.9 [2.0]

PVLP, shock/and anti-cavitation valves

Code no. 157B...	2032	2050	2063	2080	2100	2125	2140	2150	2160	2175	2190	2210	2230	2240	2250	2265	2280	2300	2320	2350	
Settings	bar	32	50	63	80	100	125	140	150	160	175	190	210	230	240	250	265	280	300	320	350
	[psi]	460	725	914	1160	1450	1813	2031	2175	2320	2538	2755	3045	3335	3480	3625	3845	4061	4351	4641	5075
Weight	0.05 kg [0.17 lb]																				

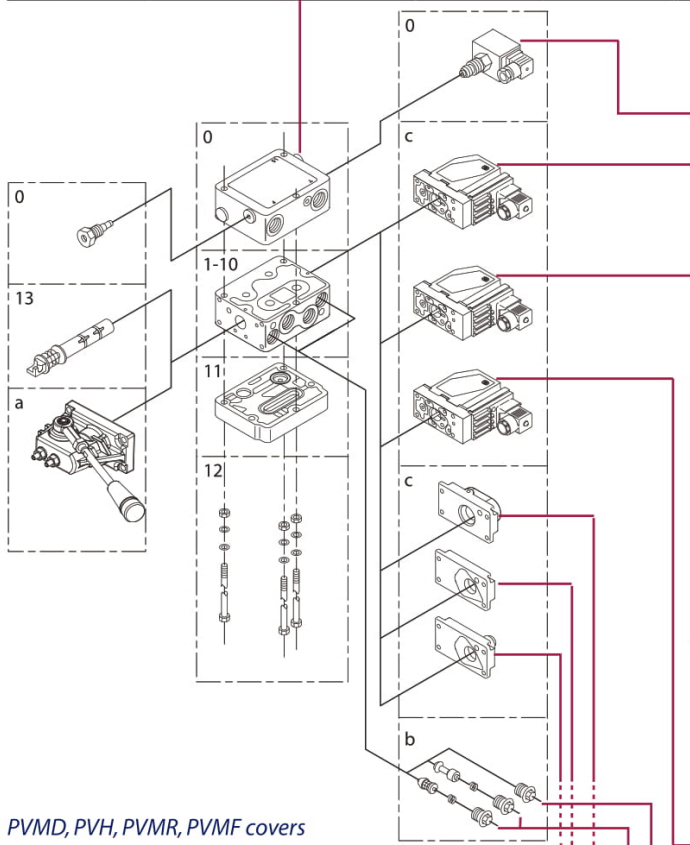




PVG 32 Proportional Valve Specification Module Selection Chart

PVP, pump side module

Code no. 157B....	Without pilot supply		With pilot supply				
	for PVE	for PVE with facilit. for PVPX	for PVE	for PVE and facilit. for PVPX	for PVE and pilot oil pressure take-off	for PVH and pilot oil pressure take-off	
Open centre	P = G 1/2, T = G 3/4	5000	-	5010	5012	-	-
	P = 7/8 in - 14, T = 1 1/16 in - 12	5200	-	5210	5212	-	-
	P = G 3/4, T = G 3/4	5100	5102	5110	5112	5180	5190
	P = 1 1/16 in - 12, T = 1 1/16 in - 12	5300	-	5310	5312	5380	5390
Closed centre	P = G 1/2, T = G 3/4	5001	-	5011	5013	-	-
	P = 7/8 in - 14, T = 1 1/16 in - 12	5201	-	5211	5213	-	-
	P = G 3/4, T = G 3/4	5101	5103	5111	5113	5181	5191
	P = 1 1/16 in - 12, T = 1 1/16 in - 12	5301	-	5311	5313	5381	5391
Weight	kg [lb]	3.0 [6.6]	3.0 [6.6]	3.0 [6.6]	3.0 [6.6]	3.0 [6.6]	3.0 [6.6]



PVMD, PVH, PVMR, PVMF covers

Code no. 157B....	Code No.	Weight	
		kg	[lb]
PVMR (frict. detent)	0004	0.3	0.6
PVMF (mech. float position)	0005	0.3	0.6
Cover for PVM	0001	0.1	0.2
Hydraulic actuation PVH 9/16 - 18 UNF	0007	0.9	2.0
Hydraulic actuation PVH G 1/4	0008	0.2	0.4

PVPX, electrical LS pressure relief valves

Code no. 157B....	Code No.	Weight		
		kg	[lb]	
Normally open	12 V	4236	0.3	0.7
	24 V	4238	0.3	0.7
Normally closed	12 V	4246	0.3	0.7
	24 V	4248	0.3	0.7
Normally open with manual override	12 V	4256	0.3	0.7
	24 V	4258	0.3	0.7
	26 V	4260	0.3	0.7
Plug		5601	0.06	0.13

PVE, electrical actuation

Code no. 157B....	Code No.			Weight	
	Hir.	AMP	Deut.		kg [lb]
PVEO, on-off	12 V	4216	4901	4291	0.6 [1.3]
	24 V	4228	4902	4292	0.6 [1.3]
PVEO-R, on/off	12 V	4217	4903	-	0.6 [1.3]
	24 V	4229	4904	-	0.6 [1.3]
PVEM, prop. medium - Standard	12 V	4116	-	-	0.9 [2.0]
	24 V	4128	-	-	0.9 [2.0]
PVEM, prop. medium - Float -> B	12 V	4416	-	-	1.0 [2.2]
	24 V	4428	-	-	1.0 [2.2]
PVEA, active fault mon.	-	4734	4792	-	0.9 [2.0]
PVEA, passive fault mon.	-	4735	-	-	0.9 [2.0]
PVEA-DI, active fault mon.	-	4736	4796	-	0.9 [2.0]
PVEA-DI, passive fault mon.	-	4737	-	-	0.9 [2.0]
PVEH active fault mon.	4032	4034	4092	-	1.0 [2.2]
PVEH passive fault mon.	4033	4035	4093	-	1.0 [2.2]
PVEH float -> B, act. fault	4332	-	4392	-	1.0 [2.2]
PVEH float -> A, act. fault	-	4338	-	-	1.0 [2.2]
PVEH - DI active fault mon.	-	4036	4096	-	1.0 [2.2]
PVEH - DI passive fault mon.	-	4037	-	-	1.0 [2.2]
PVES, active fault mon.	4832	4834	4892	-	1.0 [2.2]
PVES, passive fault mon.	4833	4835	-	-	1.0 [2.2]

PVLA, anti-cavitation valve

Code no. 157B....	Code No.	Weight	
		kg	[lb]
Plug A or B	2002	0.04	0.09
Valve A or B	2001	0.05	0.1

Retningsventil PVG 32




Vi leverer ferdigbygget PVG32 ventiler!





Du kan også bygge ventilene selv ved hjelp av instruksjonsfilmen:







<https://www.youtube.com/watch?v=2PnxYj1FXvA>

PVG32 komponent prisliste

Del	Beskrivelse	Art nummer
Inngangselement PVP 	Lukket senter	SD157B5111
	Åpent senter	SD157B5110
	Lukket senter 1"	SD157B5938
	Lukket senter for avlastningsventil	SD157B5113
Arbeidselement 	Med komp.	SD157B6200
	Med komp. – for sjokkventil	SD157B6230
	Med komp. – med LSA/B just.	SD157B6203
	Med komp. – og tilbakeslagsventil med LSA/B justering for sjokkventil	SD157B6233
LS avlastningsventil 	Normalt åpen 24V	SD157B4238
	Normalt åpen 26V med nødkjøring	SD157B4260
	Normalt lukket 26V	SD157B4976
Spakhus 	Mekanisk aktivering anodisert	SD157B3184
	Mekanisk aktivering aluminium	SD157B3171

Endeplate 	Utgangselement PVSI forsterket	SD157B2014
	Utgangselement PVS med LX forbindelse	SD157B2011
	Utgangselement PVS med LX forbindelse forsterket	SD157B2015
Endedeksel 	Endedeksel for manuell betjening anodisert	SD157B0009
Sleidekontroll 	Sleidekontroll PVMR, friksjon detent Sleidekontroll PVMR, friksjon detent Anodisert, brukes med tapp SD155L9150 på sleideren	SD157B0004 SD157B0012
Sleidekontroll elektrisk 	Sleidekontroll PVEO, on/off 12V	SD11166836
	Sleidekontroll PVEO, on/off 24V	SD11166743
	Sleidekontroll PVEM 12/24V medium	SD11166829
	Sleidekontroll PVEH-U 0-10V	SD11166770
	Sleidekontroll PVEH 11-32V passiv	SD11166824
	Sleidekontroll PVEH 11-32V aktiv	SD11166817
	Sleidekontroll PVEH 12/24V aktiv AMP	SD11166818
Sleide 	10 l/min syl. 4/3 uten LS justering	SD157B7000
	10 l/min syl. 4/3 med LS justering	SD157B7020
	10 l/min motor 4/3 uten LS justering	SD157B7100
	10 l/min motor 4/3 med LS justering	SD157B7120
	10 l/min enk.v. 3/3 uten LS justering	SD157B7200
	25 l/min syl. 4/3 uten LS justering	SD157B7001
	25 l/min syl. 4/3 med LS justering	SD157B7021
	25 l/min motor 4/3 uten LS justering	SD157B7101
	25 l/min motor 4/3 med LS justering	SD157B7121
	25 l/min enk.v. 3/3 uten LS justering	SD157B7201
	40 l/min syl. 4/3 uten LS justering	SD157B7002
	40 l/min syl. 4/3 med LS justering	SD157B7022
	40 l/min motor 4/3 uten LS justering	SD157B7102
	40 l/min motor 4/3 med LS justering	SD157B7122
	40 l/min enk.v. 3/3 uten LS justering	SD157B7202
	40/100 l/min motor 4/3 asymetrisk	SD157B9505
	65 l/min syl. 4/3 uten LS justering	SD157B7003
	65 l/min syl. 4/3 med LS justering	SD157B7023
	65 l/min motor 4/3 uten LS justering	SD157B7103
	65 l/min motor 4/3 med LS justering	SD157B7123
	65 l/min enk.v. 3/3 uten LS justering	SD157B7203
	100 l/min syl. 4/3 uten LS justering	SD157B7004
	100 l/min syl. 4/3 med LS justering	SD157B7024
	100 l/min motor 4/3 uten LS justering	SD157B7104
100 l/min motor 4/3 med LS justering	SD157B7124	
100 l/min enk.v. 3/3 uten LS justering	SD157B7204	

	130 l/min syl. 4/3 uten LS justering	SD157B7006
	130 l/min syl. 4/3 med LS justering	SD157B7026
	130 l/min motor 4/3 uten LS justering	SD157B7106
	130 l/min motor 4/3 med LS justering	SD157B7126
Sjokkventil 	Sjokk/Etterfyllingsventil PVLP 32 bar	SD157B2032
	Sjokk/Etterfyllingsventil PVLP 50 bar	SD157B2050
	Sjokk/Etterfyllingsventil PVLP 63 bar	SD157B2060
	Sjokk/Etterfyllingsventil PVLP 80 bar	SD157B2080
	Sjokk/Etterfyllingsventil PVLP 100 bar	SD157B2100
	Sjokk/Etterfyllingsventil PVLP 125 bar	SD157B2125
	Sjokk/Etterfyllingsventil PVLP 140 bar	SD157B2140
	Sjokk/Etterfyllingsventil PVLP 150 bar	SD157B2150
	Sjokk/Etterfyllingsventil PVLP 160 bar	SD157B2160
	Sjokk/Etterfyllingsventil PVLP 175 bar	SD157B2175
	Sjokk/Etterfyllingsventil PVLP 190 bar	SD157B2190
	Sjokk/Etterfyllingsventil PVLP 210 bar	SD157B2210
	Sjokk/Etterfyllingsventil PVLP 230 bar	SD157B2230
	Sjokk/Etterfyllingsventil PVLP 240 bar	SD157B2240
	Sjokk/Etterfyllingsventil PVLP 250 bar	SD157B2250
	Sjokk/Etterfyllingsventil PVLP 265 bar	SD157B2265
	Sjokk/Etterfyllingsventil PVLP 280 bar	SD157B2280
	Sjokk/Etterfyllingsventil PVLP 300 bar	SD157B2300
	Sjokk/Etterfyllingsventil PVLP 320 bar	SD157B2320
	Sjokk/Etterfyllingsventil PVLP 350 bar	SD157B2350
Etterfyllingsventil 	Etterfyllingsventil	SD157B2001
Plugg 	Plugg for sjokkventil PVLA63, brukes for enkeltvirkende sleider	SD157B2002
Boltesett 	Boltesett for 1 element	SD157B8001
	Boltesett for 2 elementer	SD157B8002
	Boltesett for 3 elementer	SD157B8003
	Boltesett for 4 elementer	SD157B8004
	Boltesett for 5 elementer	SD157B8005
	Boltesett for 6 elementer	SD157B8006
	Boltesett for 7 elementer	SD157B8007
	Boltesett for 8 elementer	SD157B8008
	Boltesett for 9 elementer	SD157B8009
	Boltesett for 10 elementer	SD157B8010
Pakningssett	For arbeidselement PVB	SD157B6999
	For Inngangselement PVP	SD157B5999
	For sleidektr el. PVEH/S	SD157B4997
	For spakhus	SD157B3999
	Mellom arbeidselementer PVB	SD157B8999

LS kompensator 	LS kompensator ventil	SD158H8055
Joystick 	Joystick PVREL 1 prop.	SD155U2605
	Joystick PVREL 1 prop. med låsing	SD155U2606
	Deksel for joystick PVREL m/pg nippel	SD155U2600
Joystick 	Joystick PROF1 3 prop. 1 on/off	SD162F1107
Kabel 	Kabel 4m for PROF1/PVRE	SD162B6014
	Spolekontakt Hirschmann m/3m kabel	MU7000181 212280300
	Spolekontakt AMP Junior m/4m kabel	SD157B4994

PLOGSTYRINGER

🏠 Jernkroken 7, Oslo

📞 22 90 05 60

✉️ firma@egileng.no

🌐 egileng.no

🛒 webshop.egileng.no



Beskrivelse	Varenummer	Bilde
Styrepanel modulbasert frontplog 2 knapp	EL1806001	
<u>Styrepanel modulbasert frontplog (Utgått)</u>	EL1206001 (Utgått)	
<u>Styrepanel for front-/sideplog</u>	EL1410001X	
<u>Kabelsett med styrerkort for plogstyring</u>	E117000	
<u>Kretskort for plogstyring m/komp.</u>	EE9904002K	
<u>Spakbryter 4-veis fjærretur mikrobytere</u>	SZ119964	
<u>Styrespak 4-veis + 2 brytere</u>	EL8588167	



Funksjonsbeskrivelse


Styrepanel

På styrepanelet finnes:

- 1 stk 4-veis joystick med to brytere, med stillinger: løft – senk – høyre – venstre.
- 1 stk. 2-stilling bryter merket ON med tilhørende grønn lampe for statusindikasjon
- 1 stk. 2-stilling bryter merket med FLYT-symbol med tilhørende gul lampe for statusindikasjon
- 1 stk. 2-stilling bryter merket med Sand/salt-symbol med tilhørende gul lampe for statusindikasjon
- 1 stk. 2-stilling bryter merket med Slaps-symbol med tilhørende gul lampe for statusindikasjon
- 1 stk. nødstoppbryter.

Joystick

Funksjonstabell:

	Funksjon	Aktive utganger
	LØFT	PIN 1, 9
	SENK	PIN 2, 3, 9
	HØYRE	PIN 5, 9
	VENSTRE	PIN 6, 9

Funksjoner henviser til utganger på kretskort EE117000 som blir slått på, ved bruk av styrepanelet. Hvilke utganger som anvendes, vil variere med system hos forbruker. Se vedlagt koblingskjema.

NB: Brytere på joystick med leder 12 og 13 skal kobles til rele ved bruk.

Aktivering av flyt: For å aktivere flyt-funksjon, må to handlinger utføres:

1. Trykkbryter-Flyt settes i PÅ-stilling.
2. Spakbryter Senk må aktiveres i et øyeblikk.

Tilhørende grønn indikasjonslampe vil nå lyse, gul indikasjonslampe vil slukkes. Plogen er i Flyt-modus.

Flyt-modus vil deaktiveres ved at enten Trykkbryter-Flyt slås av eller Spakbryter Løft aktiveres.

Deaktivering av flyt kvitteres ved at tilhørende grønn indikasjonslampe slukkes.

GUL OG GRØNN LAMPE VIL TIL ENHVER TID KVITTERE FOR OM PLOGEN ER I FLYTESTILLING ELLER IKKE.

GRØNN = FLYT, GUL = TRANSPORT.

Aktivering av Sand/Slaps For å aktivere Sand/slaps-funksjon, trykk inn Trykkbryter Sand/slaps. Tilhørende grønn indikasjonslampe vil nå lyse

Aktivering av Saltspreder For å aktivere Saltspreder-funksjon, trykk inn Trykkbryter Saltspreder. Tilhørende grønn indikasjonslampe vil nå lyse.

Kabelsett

På kabelsettet finnes:

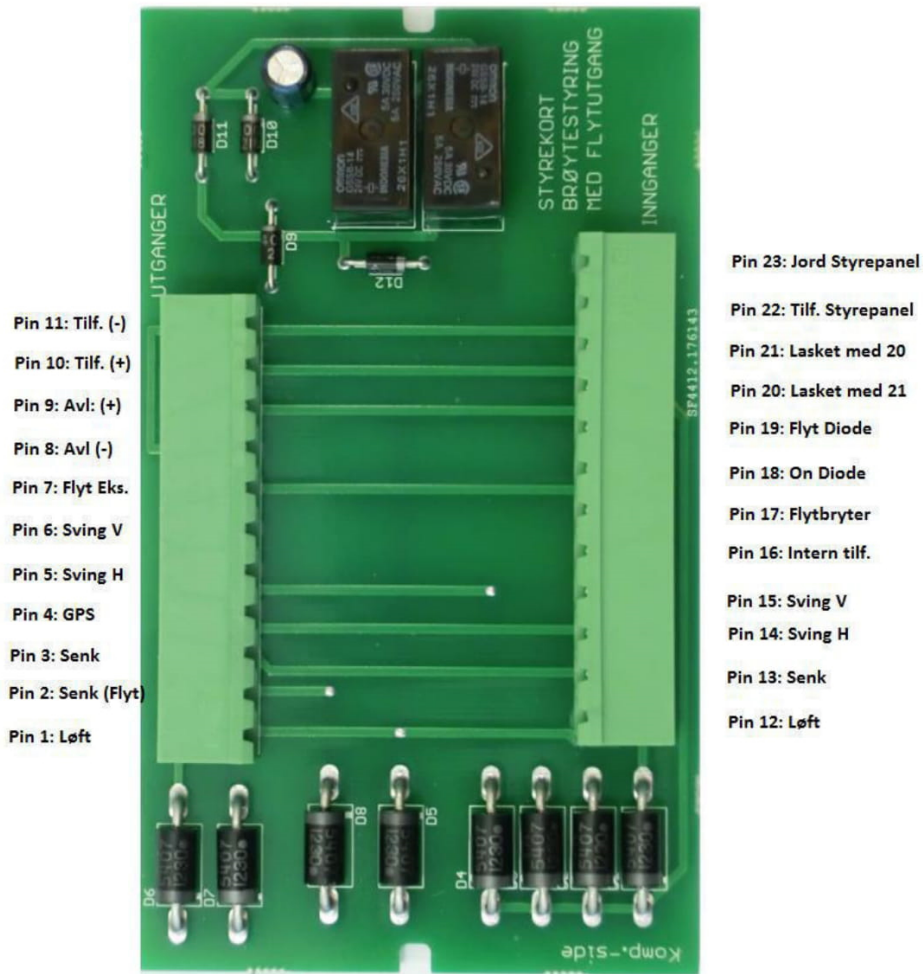
- Kretskort for plogstyring artnr: EE9905004K
- 12 leders kabel for utganger/hydraulikkentral
- 2-leder kabel for hele systemets tilførsel
- 2-leder kabel for avlastningsventil

Oppkobling styrepanel og kabelsett

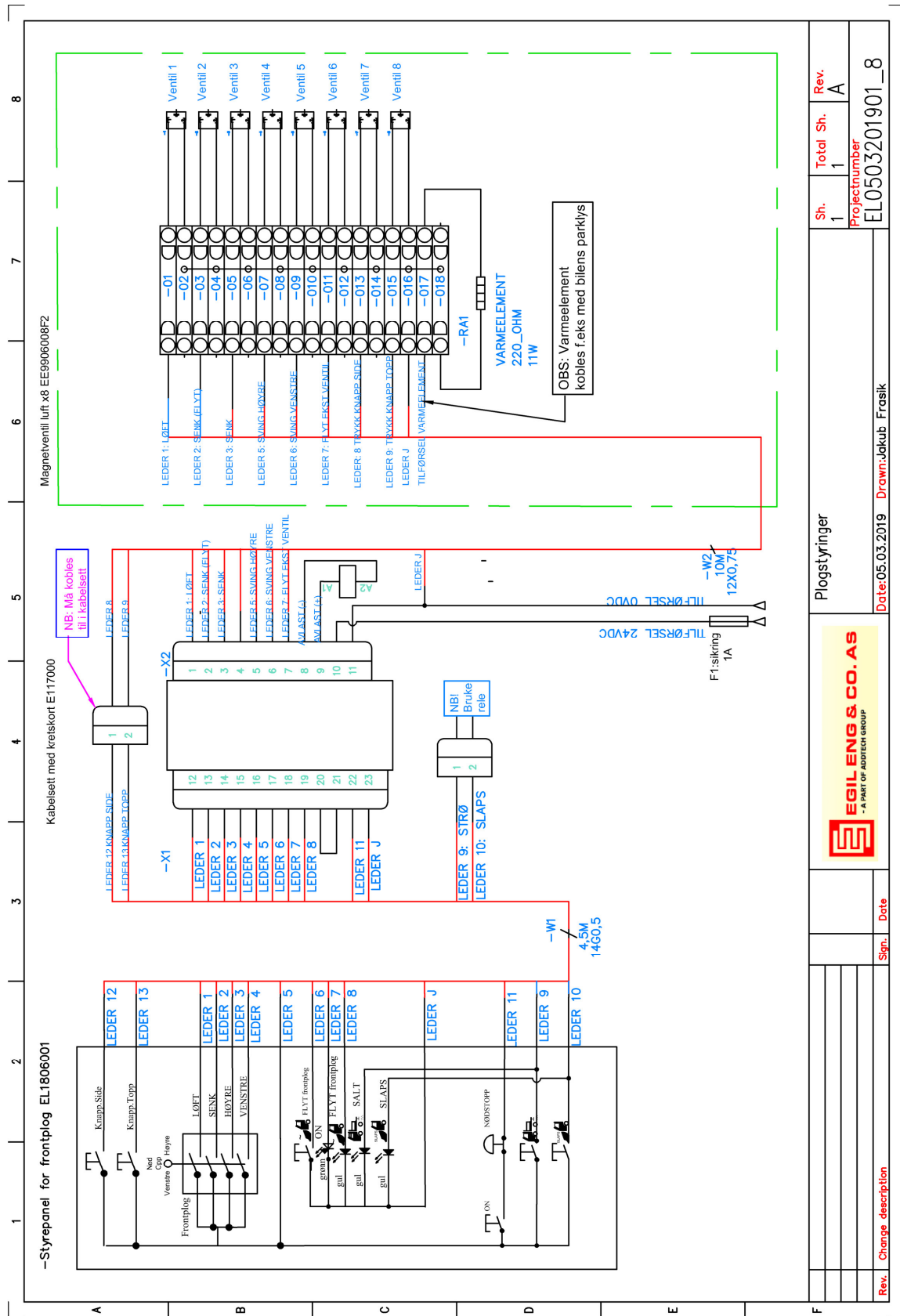
- 11-pins kontakt fra styrepanel presses inn motstykket på kretskortet.
- 2-leder tilførselskabel kobles til +24V og 0V
- 2-leder kabel for «Avlastningsventil» kobles til avlastningsventil
- (Valgfritt) For GPS utgang koble til Pin 4.

Pin 4 på kretskort vil ligge med 24V når funksjonen Flyt er aktivert. Se vedlagt bilde av kretskort.

Oversikt over tilkoblinger på kretskort art. EE11700

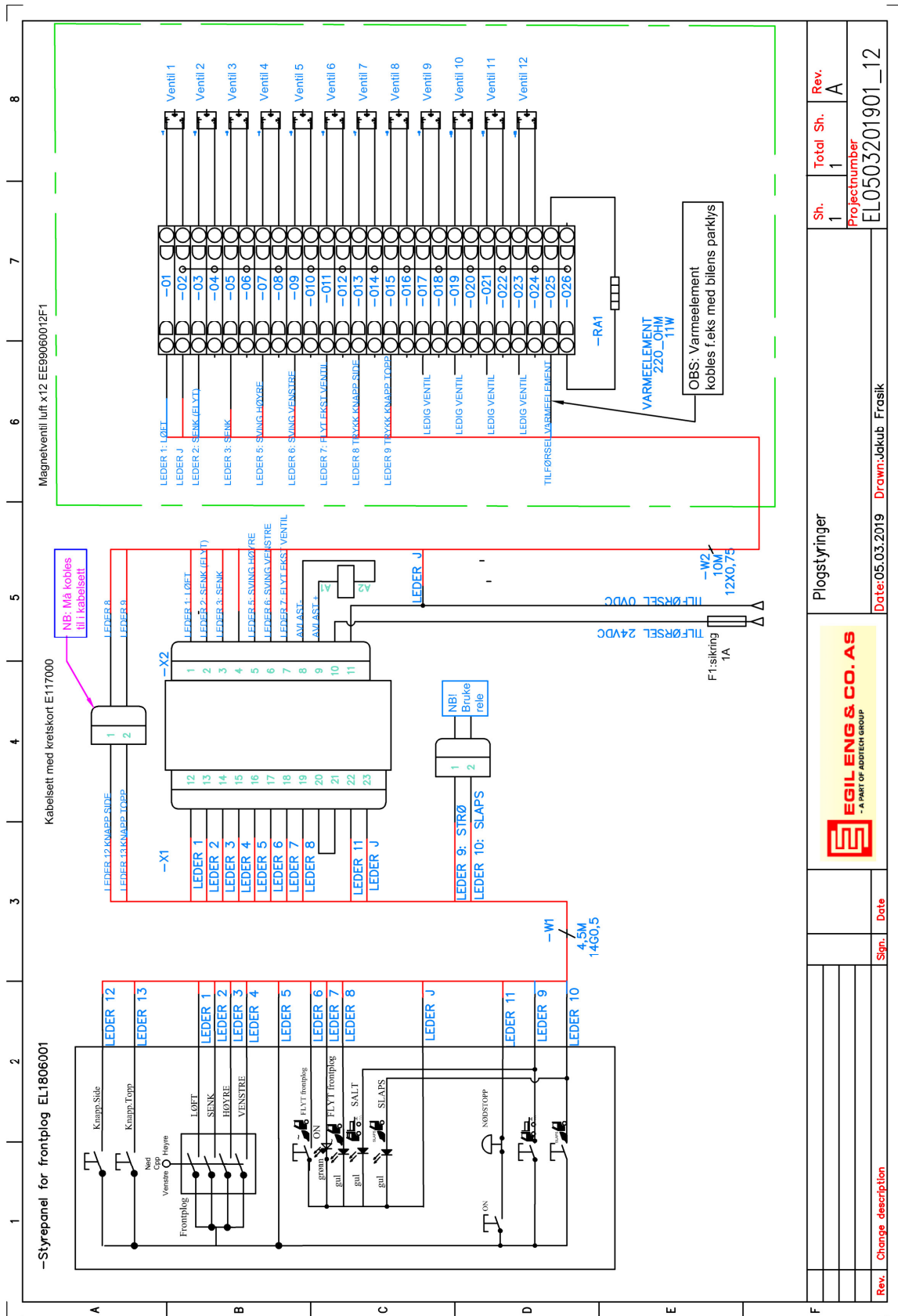


Tilkobling mellom Styrepanel EL1806001 og Magnetventil luft x8 i kapsling EE9906008F2



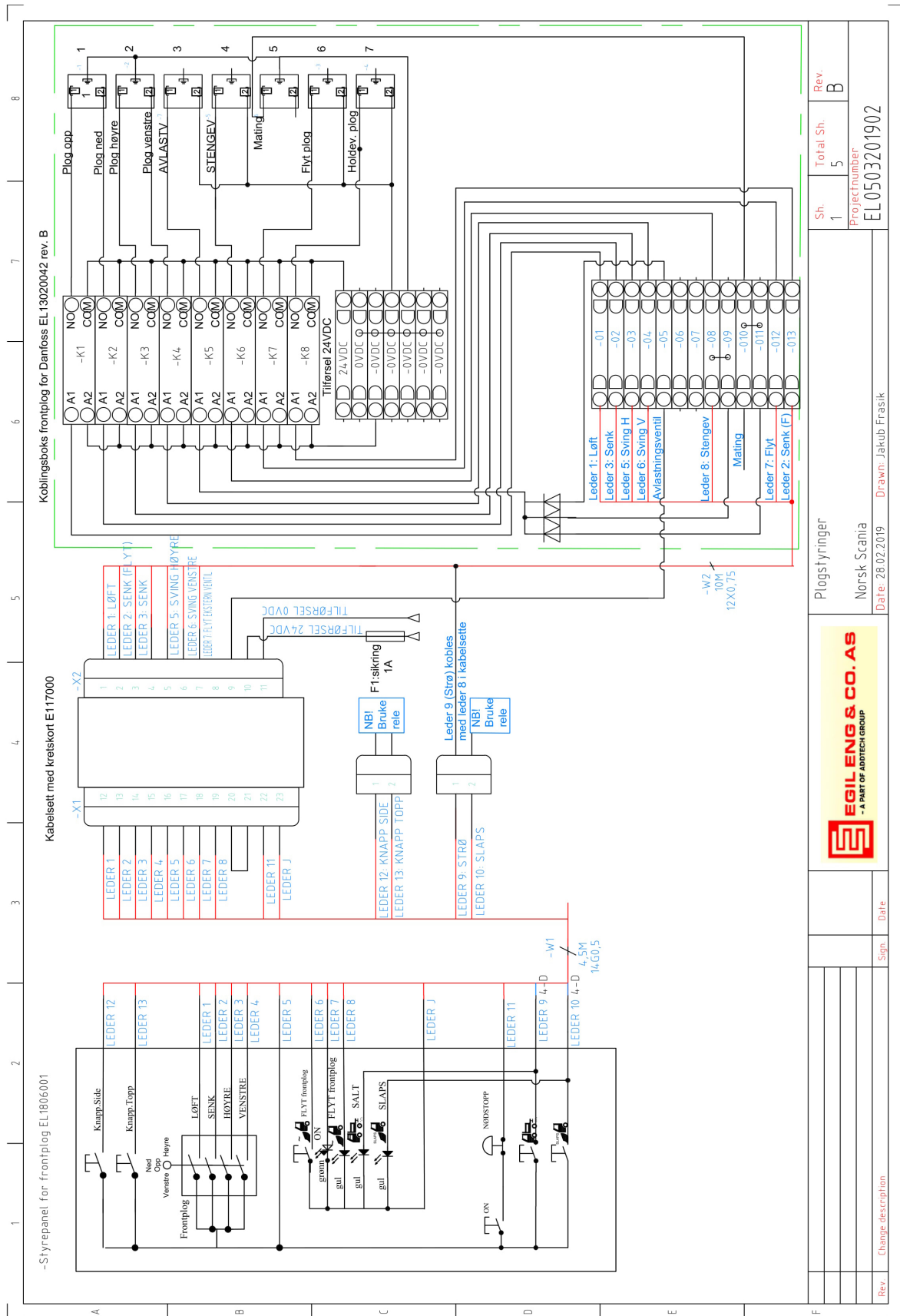
Plogstyringer		Sh. 1	Total Sh. 1	Rev. A
EGIL ENG & CO. AS - A PART OF ADDRESS GROUP		Project number EL0503201901_8		
Rev. Change description		Date: 05.03.2019 Drawn: Jekub Frøsk		

Tilkobling mellom Styrepanel EL1806001 og Magnetventil luft x12 i kapsling EE99060012F1



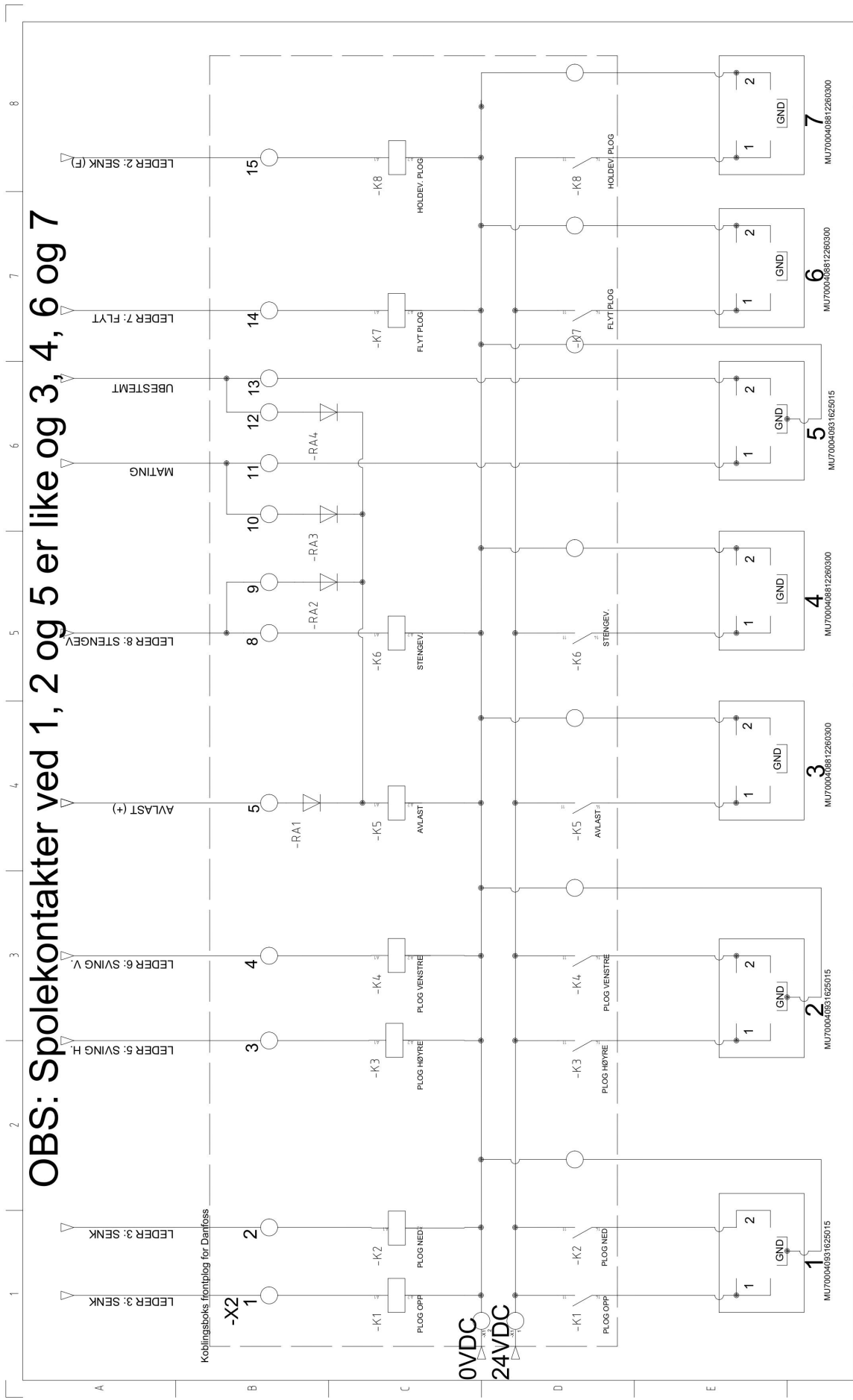
Plogstyringer		Sh. 1	Total Sh. 1	Rev. A
Project number		EL0503201901_12		
Date: 05.03.2019		Drawn: Jøakub Frøsk		
 EGIL ENG & CO. AS - A PART OF ADDRESS GROUP				
Rev. Change description	Sign.	Date		

Tilkobling mellom EL1806001, EE11700 og EL13020045



Rev	Change description	Sign	Date
 EGIL ENG & CO. AS - A PART OF ADITECH GROUP			
Plogstyringer		Norsk Scania	
Date: 28.02.2019		Drawn: Jakub Frask	
Sh	Total Sh.	Rev.	
1	5	B	
Project number EL0503201902			

OBS: Spolekontakter ved 1, 2 og 5 er like og 3, 4, 6 og 7

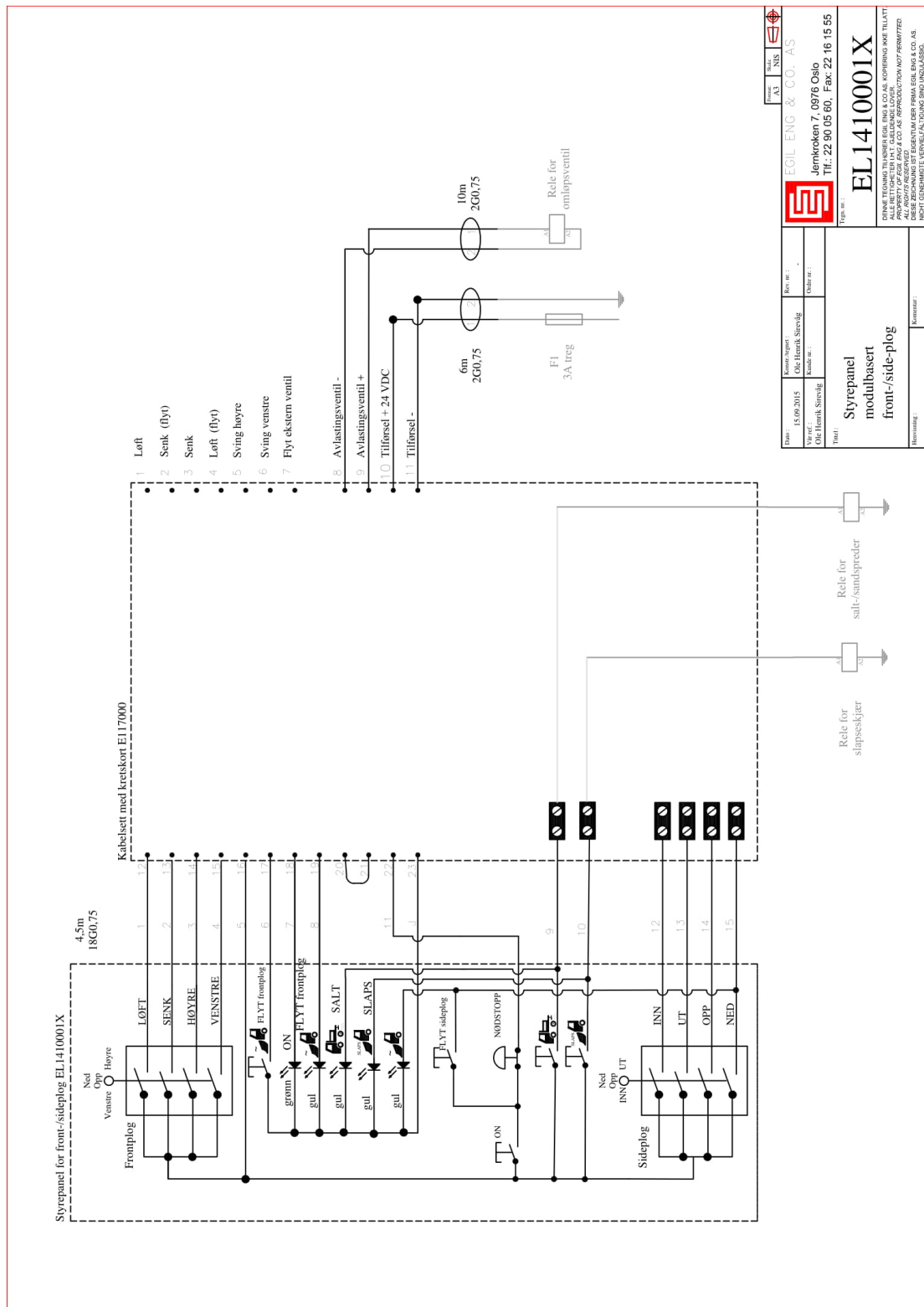


EGIL ENG & CO. AS Tlf: (+47) 22 90 05 60 Jernkroken 7 0967 Oslo E-post: firmapost@egileng.no www.egileng.no		PROSJEKTINFO		I.Dnr: _____ Tegnet av: Olav Boge Tykkhelle Godkjent av: _____ Startdato: 10.11.21 Slutt dato: _____	Arknr: _____ Sign: _____ Kundesign: _____	Rev. _____ 2
		EL13020045				

Styrepanel for front-/sideplog art. EL1410001X



Oversikt over tilkoblinger på Styrepanel for front-/sideplog art. EL1410001X og kretskort art. EE11700



Prosjekt: EL1410001X	Rev. nr.: .	EGIL ENG & CO. AS
Dato: 15.09.2015	Opprettet av: Ole Henrik Strøvig	Jernkroken 7, 0976 Oslo
Verd: Ole Henrik Strøvig	Revisjon nr.: .	Tlf: 22 90 05 00, Faks: 22 16 15 55
Tittel: Styrepanel modubasert front-/side-plog		Type nr.: EL1410001X
Revisjon nr.: .	Kommentar: .	<small> DENNE TEIINGEN TILHØRER EGIL ENG & CO. AS. KOPIERING IKKE TILLATT. PROPERTY OF EGIL ENG & CO. AS. REPRODUCTION NOT PERMITTED. DESER ZEGANUNG IST EIGENTUM DER EGIL ENG & CO. AS. NICHT GEBENWIEDLIG VERVIJLJAL TOING BINO UNDLASSIG. </small>

Kabelsett med styte kort for plogstyring art. E117000





Tilbehør og reservedeler

Komplette armlene og festebrakett


Beskrivelse	Varenummer	Bilde
<u>Armlene Frameco 310 ergo, høyre.</u>	FR310ERGO	
<u>Armlene Frameco 310 Reccaro 6000/7000 H</u>	FR310RECAROK	
<u>Festebrakett for plogstyringer</u>	E0510007	

Reservedeler til armlene

Beskrivelse	Varenummer	Bilde
Arm 310 inkl. tapp høyre	FR81175	
Stolfeste Isri 337/338	FR380119	


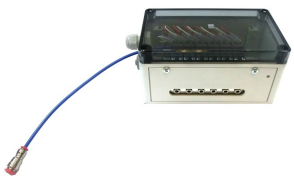
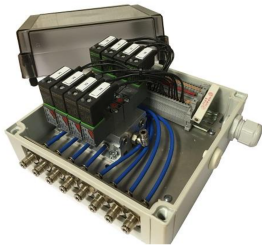

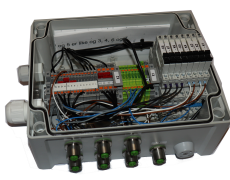


Stolfeste Recaro 6000/7000 H	FR81661	
Distanse fast del til Recaro 6000/7000	FR71089	
Spesialledd Vinkel og Stål T inkl	FR380815	
Gaffel til 310 - setebrekket	FR71028	
Tapp komplett for 310	FR80164	

Reservedeler elektronikk

Beskrivelse	Varenummer	Bilde
<u>Kretskort for plogstyring m/komp.</u>	EE9904002K	

<p><u>Komplett sirkulærkontakt 12pol HUN skjøt</u></p>	<p>EL4462623</p>	
<p><u>Komplett sirkulærkontakt 12pol HUN panel</u></p>	<p>EE4462532</p>	
<p><u>Komplett sirkulærkontakt 12 pol HAN</u></p>	<p>EL4462508</p>	
<p><u>Dioderekke 4stk</u></p>	<p>EL1305001</p>	
<p><u>Dioderekke 8stk</u></p>	<p>EL1305002</p>	

Koblingsbokser og reservedeler

Beskrivelse	Varenummer	Bilde
<p><u>Magnetventil luft x5 i kapsling</u> 180x130x100mm</p>	EE9906005F1 (Utgått)	
<p><u>Magnetventil luft x6 i kapsling</u> 180x130x100mm</p>	EE9906006F1	
<p><u>Magnetventil luft x8 i kapsling</u> 163x163x100mm</p>	EE9906008F2	
<p><u>Magnetventil luft x12 i kapsling</u> 255x180x125mm</p>	EE99060012F2	
<p><u>Koblingsboks Danfoss</u> Inkludert spolekontakter med hurtigtilkobling</p>	EL13020045	
<p><u>Kretskort for luftventiler</u></p>	EE9905004K	
<p><u>Magnetventil luft 3/2 NC</u></p>	CAMP00305P53S01	

310 Ergo Comfort

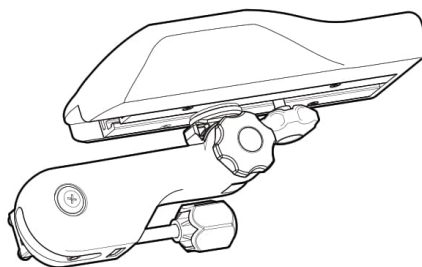
310 Ergo Comfort

- **Komfort och avlastning**
- **Hög flexibilitet**

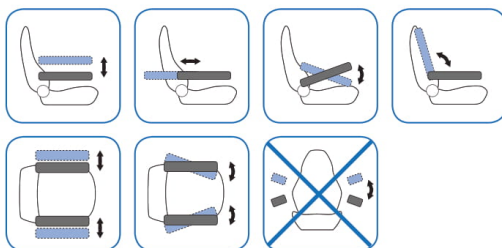
Komfort och avlastning var fokus i utvecklingen av det här armstödet. Det är mycket flexibelt med många olika justeringsmöjligheter och kan användas tillsammans med en lättvikts joystick. Ett vanligt armstöd i framför allt lastbilar, entreprenadmaskiner och gaffeltruckar. Det monteras också ofta på bevakningsstolar som avlastningsstöd.

Tekniska Specifikationer:

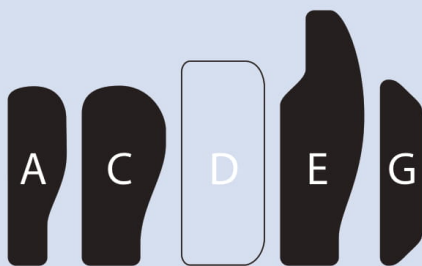
Vikt utan stolsfäste: 1,3kg
Max vikt för reglage: 1,0kg



JUSTERINGSMÖJLIGHETER



ALTERNATIV DYNOR



FRAMECO AB, Installatörvägen 19, 461 73 Trollhättan.
Telefon 0520-48 82 30.
www.frameco.se

Frameco 
THE ARMREST MANUFACTURER

Start

Om oss

Kvalitet

Miljö

Kontakt

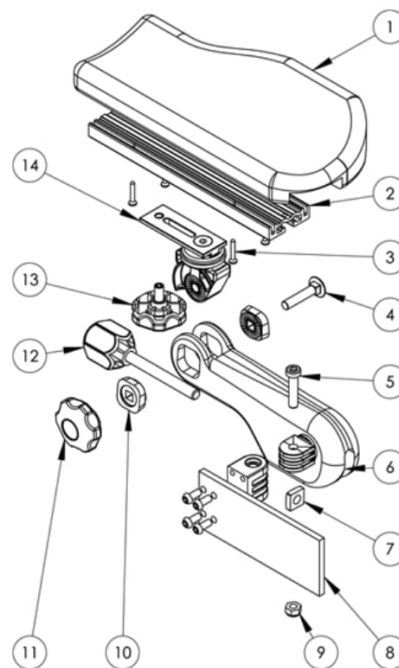
Armstöd

310 Ergo Comfort

Reservdelar

ARTIKEL NR. BESKRIVNING

310	1.	70016	Dyna C hö
		70017	Dyna C vä
600	2.	81077	Skena C smalt spår
	3.	70151	Spax 4 * 25mm
600S	4.	70849	Vagnsbult M8* 45
	5.	70776	Skruv M8* 35
2000	6.	81175	Arm 310 inkl. tapp, höger
		81223	Arm 310 inkl. tapp, vänster
2000E	7.	70109	Mutter M4M M10
	8.	Kontakta oss	Stolsfäste inkl. torn m. 4 skruv
2000S	9.	70107	Låsmutter M8
	10.	70269	Taggad låsbricka 310
2000ES	11.	70267	Låg ratt M8
	12.	80233	Hög ratt M10 kpl.
5200	13.	80232	Låg ratt M8 kpl.
	14.	80228	Dynadapter 310 kpl.



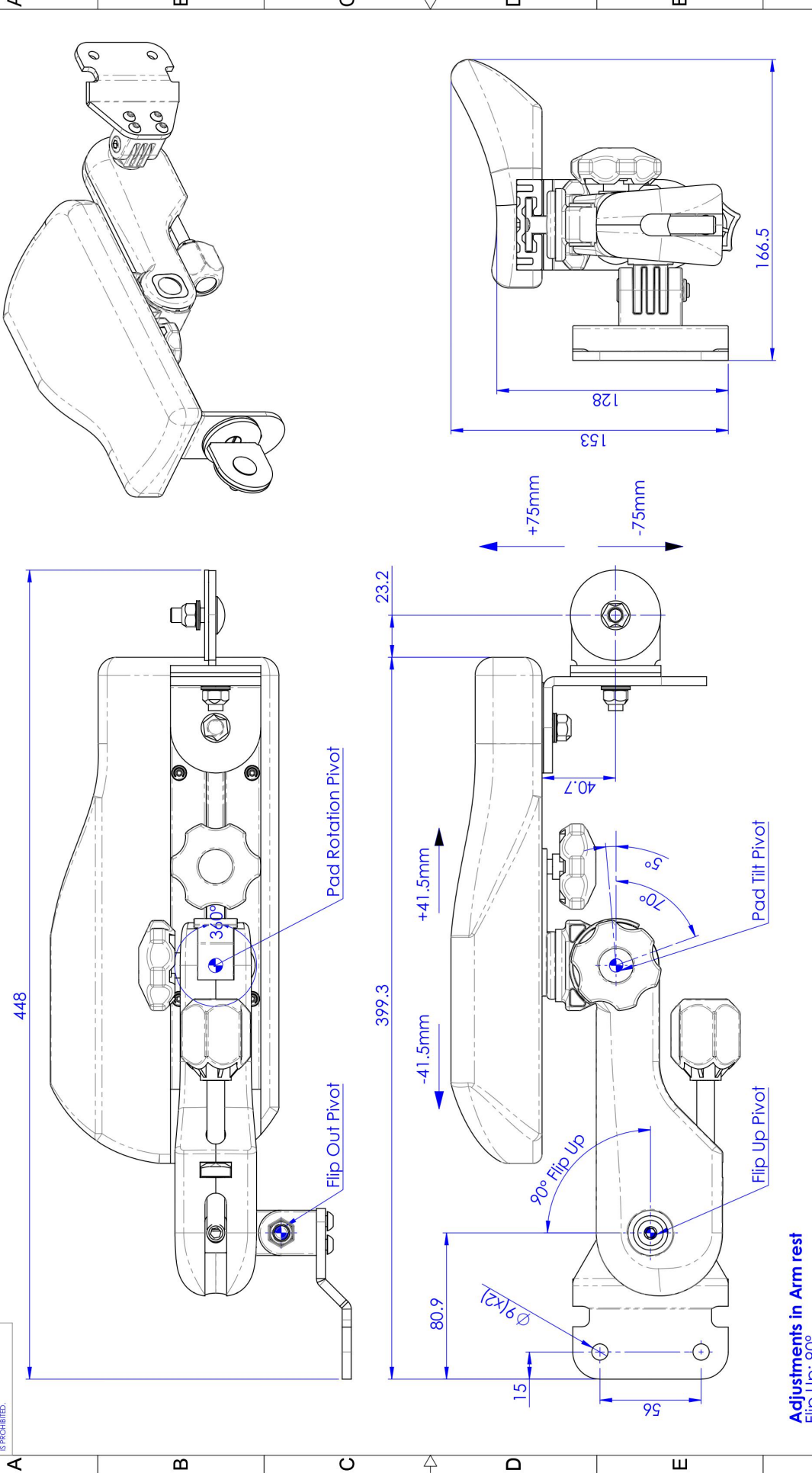
Dynor

Leder

Reglage

Anpassad

1	2	3	4	5	6	7	8	
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					<p>Signature KK</p>		<p>Date 2023-08-11</p>	
							<p>Approved VN</p>	



<p>Designed by KK</p>				<p>Article no. 132-11-104-2</p>		<p>Weight 1.88 kg</p>		<p>Date 2023-08-11</p>		<p>Scale 1:2</p>	
<p>All dimensions are for reference only, unless specified with tolerances</p>				<p>Title Armrest 310 ISRI 337/338 Pad C RH Incl Multi axis Joint</p>		<p>Filename F83302</p>		<p>Revision A</p>		<p>Format A3</p>	
				<p>Drawing no. F83302</p>		<p>Revision A</p>		<p>Format A3</p>		<p>Sheet 1 (2)</p>	

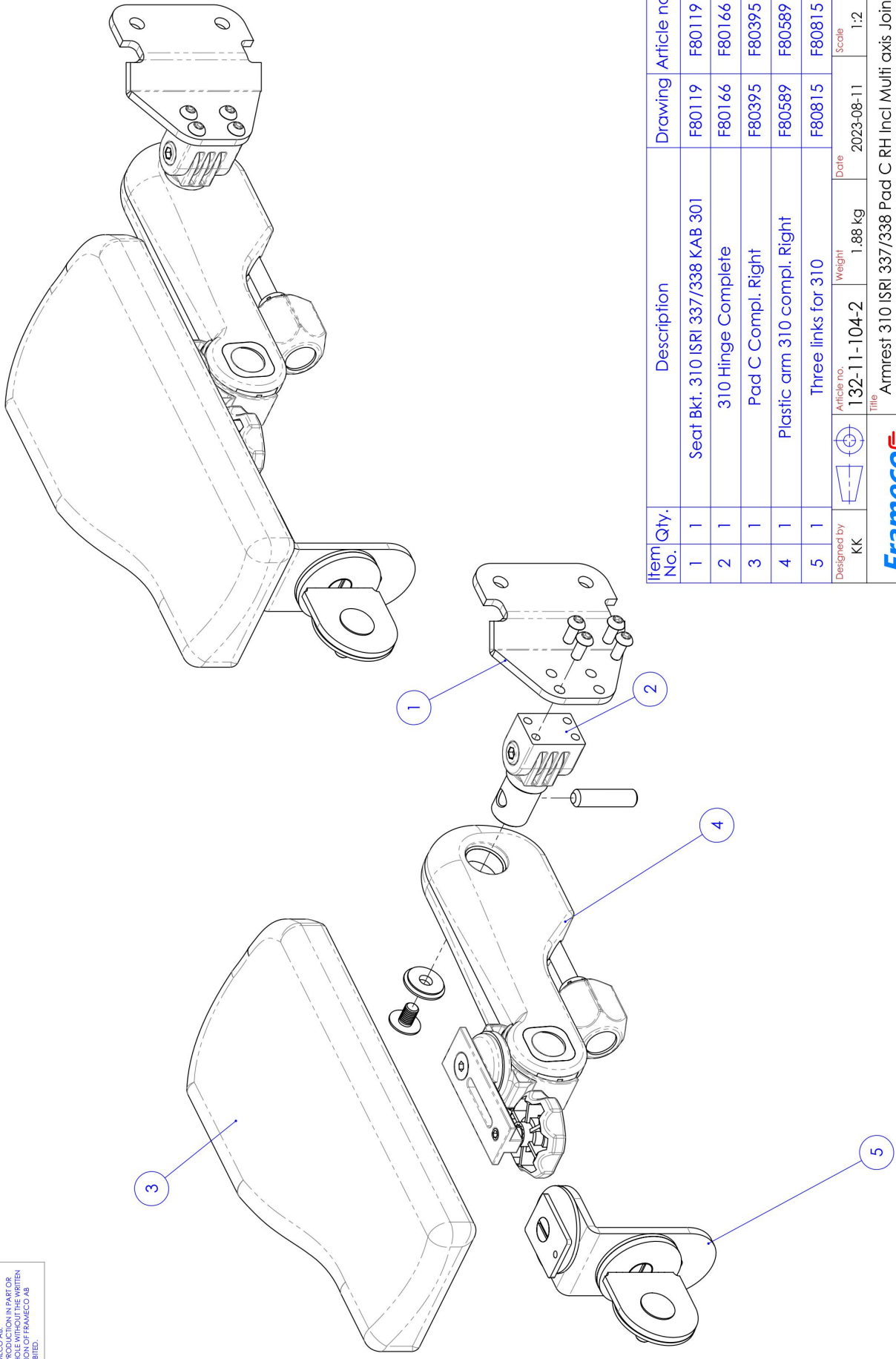
Adjustments in Arm rest
 Flip Up: 90°
 Pad Fore/Aft: +/- 41.5mm
 Pad Tilt: +5° & -70°
 Pad Rotation: 360°
 Pad Up/Down: +75mm & -75mm
 Flip Out: 90°

Hardcopies are considered uncontrolled

1 2 3 4 5 6 7 8

A B C D E F

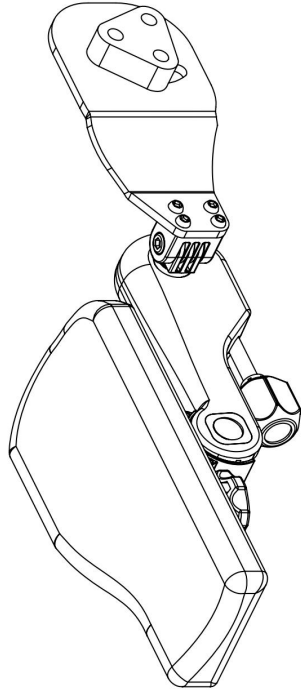
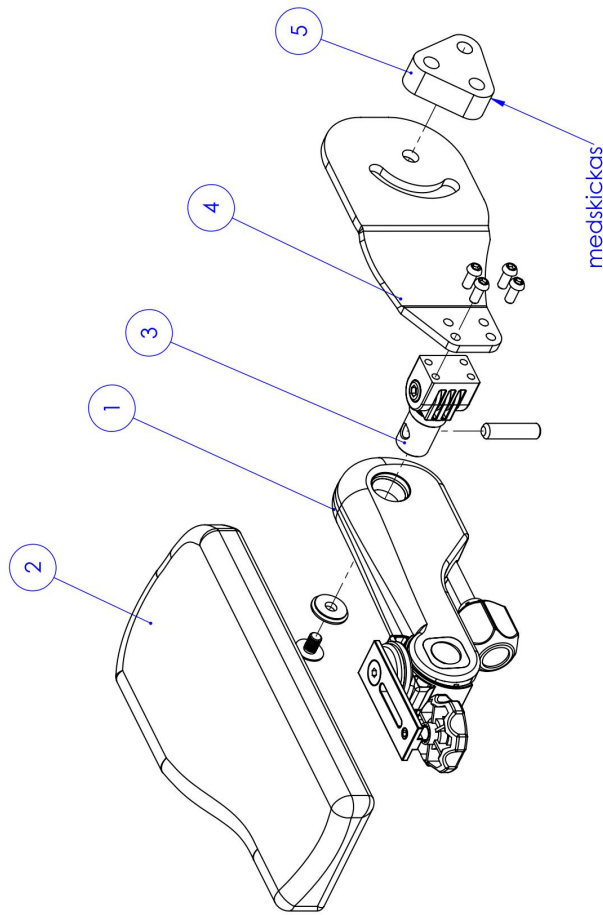
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Item No.	Qty.	Description	Drawing	Article no.
1	1	Seat Bkt. 310 ISRI 337/338 KAB 301	F80119	F80119
2	1	310 Hinge Complete	F80166	F80166
3	1	Pad C Compl. Right	F80395	F80395
4	1	Plastic arm 310 compl. Right	F80589	F80589
5	1	Three links for 310	F80815	F80815
Designed by		Article no.	Weight	Date
KK		132-11-104-2	1.88 kg	2023-08-11
		Scale	1:2	
Frameco THE ARMREST MANUFACTURER				
Title		File name	Revision	Format
Armrest 310 ISRI 337/338 Pad C RH Incl Multi axis Joint		F83302	A	A3
Drawing no.		Revision	Sheet	
F83302		A	2 (2)	

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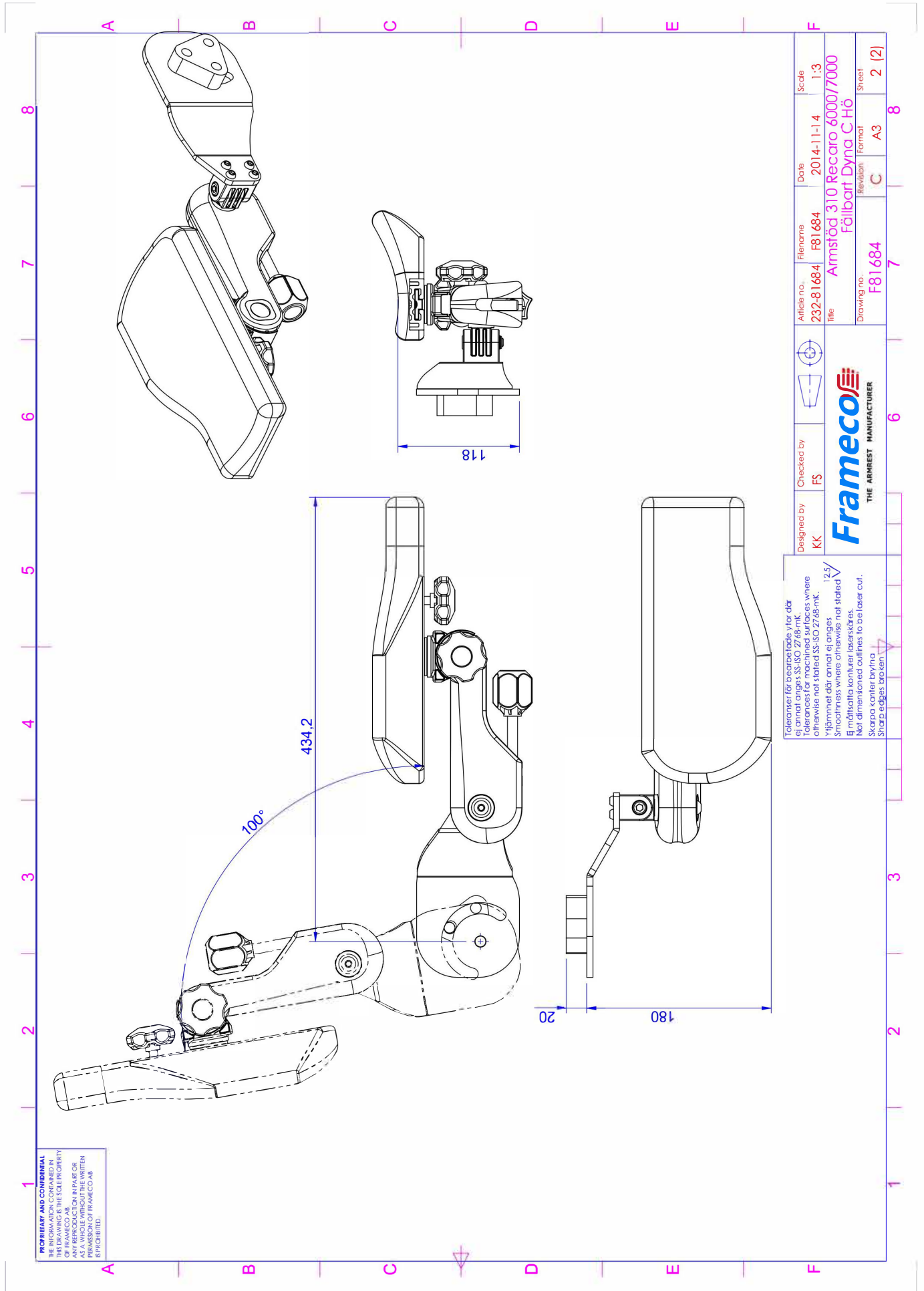
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Rev. no	Revision note	Signature	Date	Approved
B	Changed sheet format.	KK	2014-10-14	FS
C	Updated as per BOM in GARP.	kk	13-05-2015	LR

ITEM NO.	QTY.	Description	Drawing	Article no.
1	1	Arm 310 kpl. utan tapp Höger	F80589	F80589
2	1	Dyna C Kmpl. Höger	F80395	F80395
3	1	310 Torn & tapp kpl	F80166	F80166
4	1	Stolsfäste 310 Recaro 6000/7000 Hö	F81661	F81661
5	1	LS Plåt 310 Fast del Recaro 6000/7000 Fällbart	F71089	F71089

Designed by KK	Checked by FS	Article no. 232-81684	Filename F81684	Date 2014-11-14	Scale 1:3
		Title Armstöd 310 Recaro 6000/7000 Fällbart Dyna C Hö		Revision C	Sheet 1 (2)
		Drawing no. F81684	Revision C	Format A3	Sheet 1 (2)

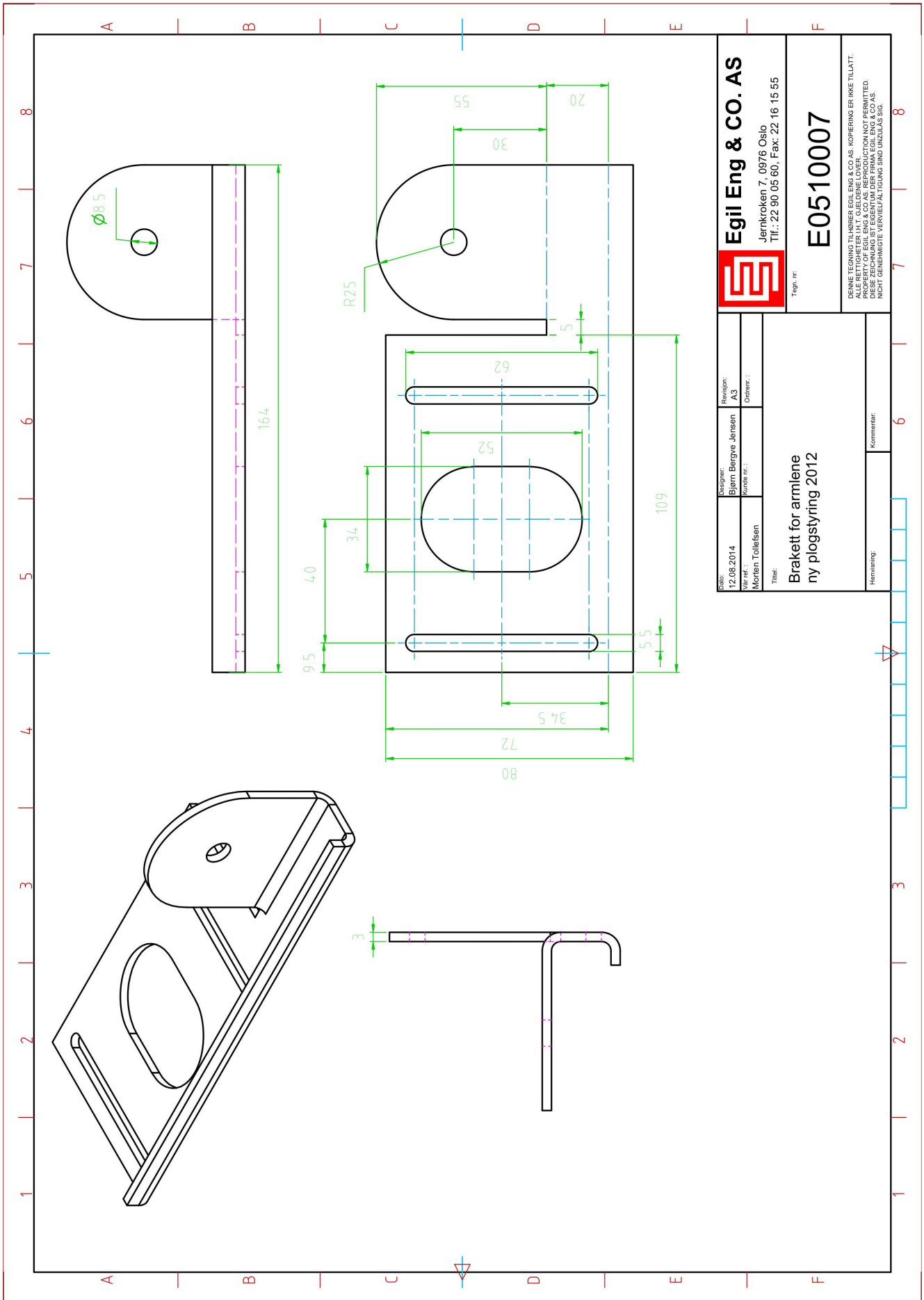


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Toleranser för bearbetade ytor där ej annat anges: SS-ISO 2768-mK.
 Tolerances for machined surfaces where otherwise not stated: SS-ISO 2768-mK.
 Yrigheter där annat ej anges ^{12.5}
 Smoothness where otherwise not stated
 Ej mättsatta konturer laserskäras.
 Not dimensioned outlines to be laser cut.
 Skarpa kanter bytina
 Sharp edges broken

Designed by	Checked by	Article no.	Date	Scale
KK	FS	F81684	2014-11-14	1:3
File name		Title		
F81684		Armstöd 310 Recaro 6000/7000		
Revision		Drawing no.		
C		F81684		
Format		Sheet		
A3		2 (2)		





Egil Eng & CO. AS

Jernkroken 7, 0876 Oslo

Tlf.: 22 90 05 60, Fax: 22 16 15 55

Teq. nr.

E0510007

Dato:	12.08.2014	Design:	Bjørn Belgve Jensen	Revisjon:	A3
Vår ref.:	Morten Tolleisen	Kunde nr.:		Opprettet:	
Tittel: Brakett for armlene ny plogstyring 2012					
Henvending:			Kommentar:		

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NYHET!

Et nytt styrepanel med skjerm basert på CAN-bus teknologi.

Planlagt lansering: 2024.

- Enklere brukergrensesnitt
- Enklere montasje
- Flere funksjoner
- Sikrere drift

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PUMPER OG TRYKKFILTERE

🏠 Jernkroken 7, Oslo

☎ 22 90 05 60

✉ firma@egileng.no

🌐 egileng.no

🛒 webshop.egileng.no



Stempelpumper faste enkle SAP Sunfab



Beskrivelse	Art. nummer	Dreieretning
Stempelpumpe SAP 040	SU23040	Høyre
Stempelpumpe SAP 047	SU23047	Høyre
Stempelpumpe SAP 056	SU23056	Høyre
Stempelpumpe SAP 064	SU23064	Høyre
Stempelpumpe SAP 084	SU23084	Høyre
Stempelpumpe SAP 108	SU23108	Høyre
Stempelpumpe SAP 084 L, high speed	SU23211	Venstre
Stempelpumpe SAP 084 R, high speed	SU23212	Høyre
Stempelpumpe SAP 108 L, high speed	SU23213	Venstre
Stempelpumpe SAP 108 R, high speed	SU23214	Høyre

Omløpsventil for SAP



Beskrivelse	Art. nummer	Pumpe type
Omløpsv. forSAP/SCP 12-64	SU91073	Opptil 64ccm
Omløpsv. forSAP/SCP 84-108	SU91077	84-108ccm

Stempelpumper faste enkle F1 Parker



Beskrivelse	Art. nummer	Dreieretning
Stempelpumpe F1-041-R Lastebil	PA3781040	Høyre
Stempelpumpe F1-051-R Lastebil	PA3781050	Høyre
Stempelpumpe F1-061-L Lastebil	PA3781061	Venstre
Stempelpumpe F1-061-R Lastebil	PA3781060	Høyre
Stempelpumpe F1-081-R Lastebil	PA3781080	Høyre
Stempelpumpe F1-101-L Lastebil	PA3781101	Venstre
Stempelpumpe F1-101-R Lastebil	PA3781100	Høyre

Omløpsventil for F1



Beskrivelse	Art. nummer	Pumpe type
Omløpsventil for F1 025-061 24V m nød kj	PA3784179	Opptil 61ccm
Omløpsventil for F1 081-101 24V m nød kj	PA3784180	81-101ccm

Stempelpumper faste doble Parker F2



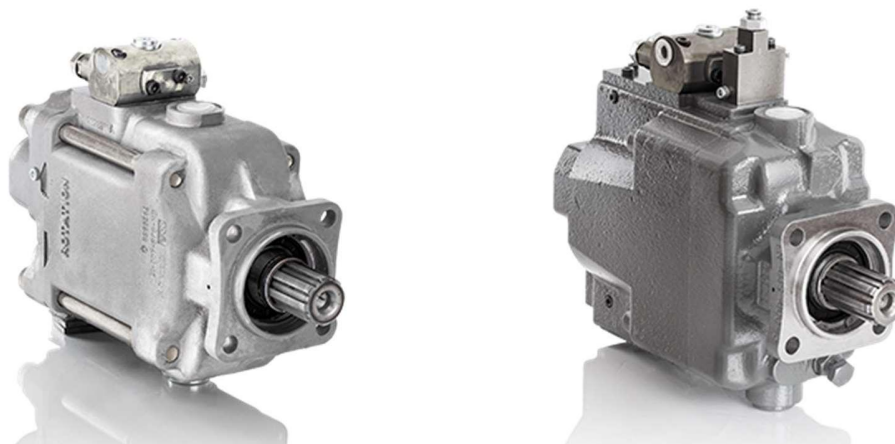
Beskrivelse	Art. nummer	Dreieretning
Stempelpumpe F2-70/35-L Lastebil	PA3781471	Venstre
Stempelpumpe F2-70/35-R Lastebil	PA3781470	Høyre

Omløpsventil for F2



Beskrivelse	Art. nummer	Pumpe type
Omløpsventil F2 alle str. 24V m nød kj.	PA3784377	Til alle F2 pumper

Variable pumper SVH Sunfab



Beskrivelse	Art. nummer	Dreieretning
Stempel.P Var 92ccm L LS LASTEBIL	SU91918	Venstre
Stempel.P Var 92ccm R LS LASTEBIL	SU91919	Høyre
Stempel.P Var 112ccm L LS LASTEBIL	SU91935	Venstre
Stempel.P Var 112ccm R LS LASTEBIL	SU91936	Høyre
Stempel.P Var 130ccm L LS LASTEBIL	SU92156	Venstre
Stempel.P Var 130ccm R LS LASTEBIL	SU92157	Høyre

Variable pumper VP1 Parker



Beskrivelse	Art. nummer	Dreieretning
Variabel pumpe VP1-045-R	PA3780334	Høyre
Variabel pumpe VP1-075-R	PA3780336	Høyre
Variabel pumpe VP1-095-L	PA3786001	Venstre
Variabel pumpe VP1-095-R	PA3786000	Høyre
Variabel pumpe VP1-110-L	PA3784111	Venstre
Variabel pumpe VP1-110-R	PA3784110	Høyre
Variabel pumpe VP1-130-L	PA3784501	Venstre
Variabel pumpe VP1-130-R	PA3784500	Høyre

Dreneringsventil for VP1



Beskrivelse	Art. nummer	Pumpe type
Dreneringsventil	PA3798799	Til alle VP1 pumper

FPK03&04-AP420

In-line high pressure filters,
up to 420 bar



Technical Data

- Filter head casting in spheroidal cast iron.
- Extruded steel bowl.
- Operating pressure at 42 MPa (420 bar)
- Static pressure testing at 63 MPa (630 bar).
- Fatigue pressure of 2.000.000 cycles at 0 - 30 MPa (0 - 300 bar) per NFPA T 3.10.5.1.
- By-pass valve setting 600 kPa (6 bar) per ISO 3968.
- Reverse flow valve which allows fluid to pass through the element in one direction but to by-pass the element when the flow is reversed. State letter "V" while placing the order.
- Operating temperature -20 +120°C.
- Compatibility hydraulic fluids per ISO 2943.
- Flow rate and pressure drop per ISO3968 with oil kinematic viscosity 30 cSt at 40°C and density 0,875 kg/dm³.
- Ports threaded per ISO 228/1 or flanged per SAE J518-6000 PSI
- Tapped predisposition for indicator.

Filter Elements

- Synteq® synthetic media (5 - 10 - 25 micron), reinforced with wire mesh.
- Collapse resistance 2 MPa (20 bar) per ISO 2941. (They can also be supplied at 21 MPa (210 bar) on customer's request).

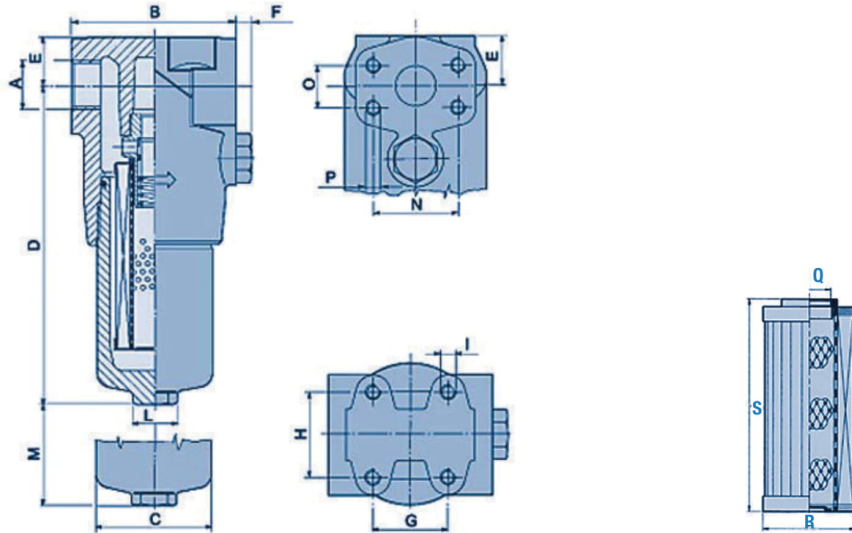
HIGH PRESSURE
FILTERS

FPK03&04-AP420

In-line high pressure filters,
up to 420 bar



Specifications



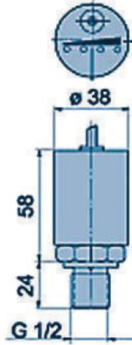
HIGH PRESSURE
FILTERS

FLOW l/min	/03		/02		/01			
	SYNTHETIC MEDIA							
	$\beta_{23(c)}=1000$		$\beta_{11(c)}=1000$		$\beta_{8(c)}=1000$			
	TYPE	ELEMENT	FLOW l/min	TYPE	ELEMENT	FLOW l/min	TYPE	ELEMENT
50	K030286	P171733	50	K030285	P171732	40	K030284	P171731
	AP 361.03	AP 451.53		AP 361.02	AP 451.52		AP 361.01	AP 451.51
80	K030289	P171736	80	K030288	P171735	60	K030287	P171734
	AP 362.03	AP 452.53		AP 362.02	AP 452.52		AP 362.01	AP 452.51
80	K030292	P171736	80	K030291	P171735	60	K030290	P171734
	AP 362.08	AP 452.53		AP 362.07	AP 452.52		AP 362.06	AP 452.51
120	K030295	P171739	120	K030294	P171738	80	K030293	P171737
	AP 363.03	AP 453.53		AP 363.02	AP 453.52		AP 363.01	AP 453.51
120	K030298	P171739	120	K030297	P171738	80	K030296	P171737
	AP 363.08	AP 453.53		AP 363.07	AP 453.52		AP 363.06	AP 453.51
180	K040676	P171742	180	K040675	P171741	160	K040674	P171740
	AP 364.03	AP 454.53		AP 364.02	AP 454.52		AP 364.01	AP 454.51
180	K040679	P171742	180	K040678	P171741	160	K040677	P171740
	AP 364.08	AP 454.53		AP 364.07	AP 454.52		AP 364.06	AP 454.51
300	K040682	P171745	300	K040681	P171744	270	K040680	P171743
	AP 365.03	AP 455.53		AP 365.02	AP 455.52		AP 365.01	AP 455.51
300	K040685	P171745	300	K040684	P171744	270	K040683	P171743
	AP 365.08	AP 455.53		AP 365.07	AP 455.52		AP 365.06	AP 455.51
400	K040688	P171748	400	K040687	P171747	320	K040686	P171746
	AP 366.03	AP 456.53		AP 366.02	AP 456.52		AP 366.01	AP 456.51
400	K040691	P171748	400	K040690	P171747	320	K040689	P171746
	AP 366.08	AP 456.53		AP 366.07	AP 456.52		AP 366.06	AP 456.51

Service Indicators

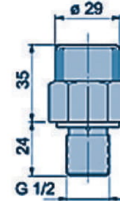
ELECTRONIC DIFFERENTIAL PRESSURE INDICATOR

Measures element restriction and indicates servicing required
P171970 (505.06)
Setting: 500 kPa (5 bar)
Max. values: 30 ACV - 0,5 A res. - 0,2 A ind.
Protection class: IP 65



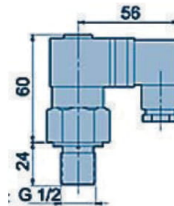
VISUAL DIFFERENTIAL PRESSURE INDICATOR

P171945 (506.06)
Setting: 500 kPa (5 bar)



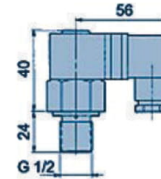
VISUAL ELECTRICAL DIFFERENTIAL PRESSURE INDICATOR

P171947 (507.03)
P171944 (507.06) with thermostat at min. temperature at 30°C
Setting: 500 kPa (5 bar)
Max. values: 250 ACV - 30 DCV - 5 A res.and ind.
Protection class: IP 65
Cable clamp: PG 11



ELECTRICAL DIFFERENTIAL PRESSURE INDICATOR

P761056
Setting: 500 kPa (5 bar)
Max. values: 250 ACV - 30 DCV - 5 A res.and ind.
Protection class: IP 65
Cable clamp: PG 11



DIMENSIONS ASSY (mm)														
A	B	C	D	E	F	G	H	I	L	M	N	O	P	Kg.
G 1/2	110	78	186	33	9	50	57	M10	Hex30	50				6,1
G 3/4	110	78	215	33	9	50	57	M10	Hex30	50				6,7
3/4 SAE 6000	110	78	215	33	9	50	57	M10	Hex30	50	50,8	23,8	M10	6,8
G 1	110	78	320	33	9	50	57	M10	Hex30	50				8,2
1 SAE 6000	110	78	320	33	9	50	57	M10	Hex30	50	57,15	27,76	M12	8,4
G 1 1/4	140	105	256	46	9	94	57	M12	Hex30	55				14,8
1 1/4 SAE 6000	140	105	256	46	9	94	57	M12	Hex30	55	66,68	31,75	M14	15,1
G 1 1/2	140	105	356	46	9	94	57	M12	Hex30	55				17,2
1 1/2 SAE 6000	140	105	356	46	9	94	57	M12	Hex30	55	79,38	36,5	M16	17,2
G 1 1/2	140	105	496	46	9	94	57	M12	Hex30	55				20,1
1 1/2 SAE 6000	140	105	496	46	9	94	57	M12	Hex30	55	79,38	36,5	M16	20,1

DIMENSIONS ELEMENT (mm)		
Q	R	S
27	54	87
27	54	122
27	54	122
27	54	230
27	54	230
40	78	140
40	78	140
40	78	240
40	78	240
40	78	380
40	78	380

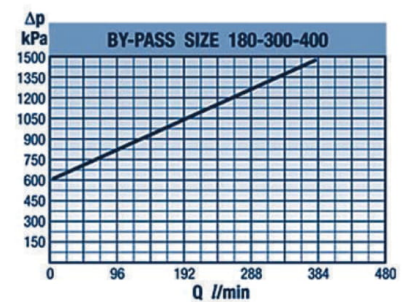
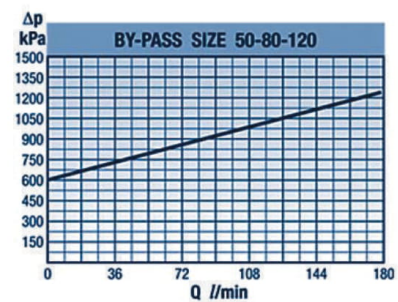
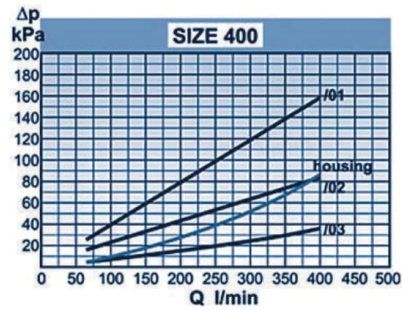
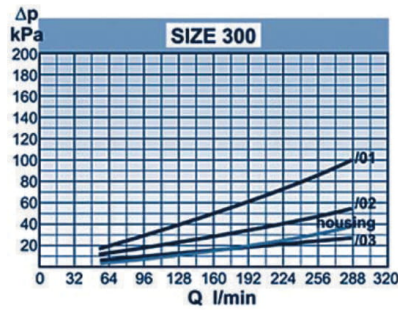
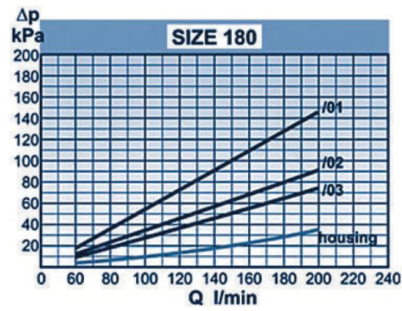
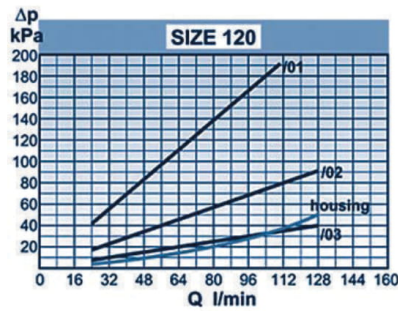
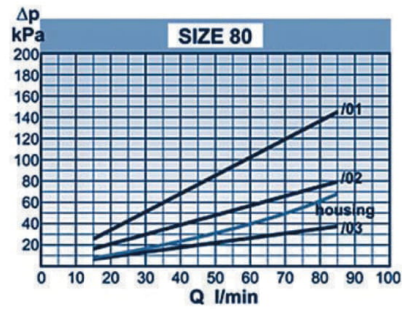
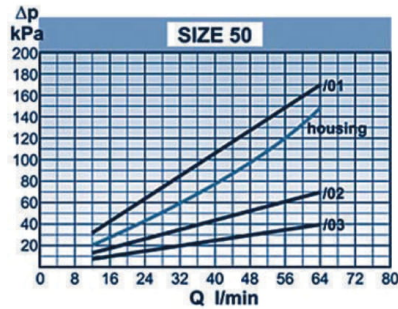
HIGH PRESSURE FILTERS

FPK03&04-AP420

In-line high pressure filters,
up to 420 bar



Performance Curves



HIGH PRESSURE
FILTERS



Directional control valve RM 270



Solutions that power your visions

31-02-RM270-07/07.11

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P.O Box 189 (Industrivägen 15)
SE-872 24 KRAMFORS
Sweden

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Web: www.nordhydraulic.se

Data sheet
Directional control valve / RM 270



RM 270

Make use of the Nordhydraulic expertise

Our skilled and experienced design and application engineers are at your disposal, helping you to specify the valve configuration that meets your application requirements.

Key valve features

The RM 270 is a monoblock valve, designed for system pressures up to 300 bar and pump flows up to 160 l/min.

It is available with 1, 2, 3, 4, and 6 sections per valve.

The valve is designed with an open centre for fixed displacement pumps.

The valve can be operated manually or by pneumatic and electro-pneumatic remote control.

The "SuperRapid"-range of the valve is optimized for maximum lowering flow of 185 l/min and allows lowering at the same time as another function is pressurized.

The valve offers excellent operating characteristics because of the specially designed spools for different applications.

Low and uniform spool forces are the result of careful balancing of the flow forces.

Applications

Typical applications are cranes, tippers, refuse trucks, multi-bucket systems and roller container vehicles. Several special versions of RM 270 fulfil many other applications.

Further RM 270 properties and possibilities

- Each section can be provided with a pressure relief valve, an anticavitation valve or a combination of these.
- There are many varieties of spools and spool controls which make the valve suitable for a wide range of applications.
- Two or more blocks can be connected in series.
- The valve can be supplied with a built-in unloading valve, which in an emergency situation makes it possible to let all the pump flow go to tank at a very low pressure drop.
- A combination of built-in flow control-, unloading- and counter pressure valves gives a compact solution and less mounting parts for refuse trucks.



- Possibility for built-in load holding valves.
- In systems with demand for both high and low flows the valve can be combined with RS 210. The adapter between the valves includes a flow control valve for reduced flow to the RS 210 working sections.

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<i>Technical data</i>	<i>page 3</i>
<i>Dimensions, weight</i>	<i>page 4</i>
<i>Relief valves</i>	<i>page 5 - 6</i>
<i>Electrical unloading valve</i>	<i>page 7</i>
<i>Spool controls</i>	<i>page 8</i>
<i>Spools</i>	<i>page 9</i>
<i>High pressure carry-over</i>	<i>page 10</i>
<i>Super Rapid</i>	<i>page 12</i>

Data sheet

This data sheet presents a selection of standard components and how to specify these in a valve assembly according to your application requirements. For further information on RM 270 and available components, please contact Nordhydraulic.



Technical data

Pressures / flow

Max. system pressure* 300 bar (30,0 MPa)
 Max continuous return line pressure..... 20bar (2,0 MPa)
 Rated flow..... 120 l/min
 *depending on application

Recommended contamination level at normal duty: equal to or better than 18/14 as per ISO 4406.

Hydraulic fluid viscosity range at continuous operation: 10-400 mm²/s(cSt). Higher viscosity allowed at start up.

Further data

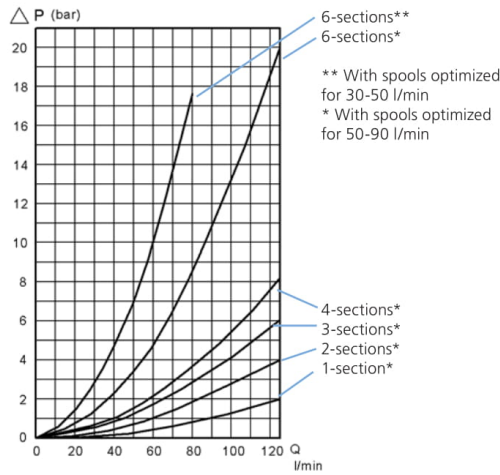
Spring force for spool control 9 in neutral position:
 130 N (13,0 kp).
 Spring force for spool control 9 with fully selected spool:
 155 N (15,5 kp).

Mineral oil and synthetic oil based on mineral oil are recommended.

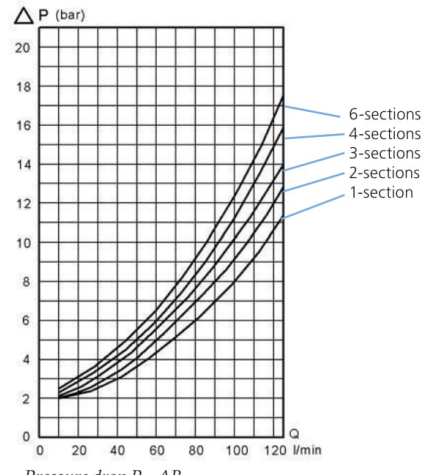
Max. hydraulic fluid temperature range for continuous operation: -15°C - + 80°C.

Spool leakage at 100 bar, 32 cSt and 40°C: <20 cm³/min.

Pressure drop

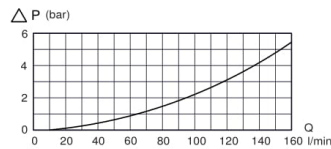


Pressure drop P-T

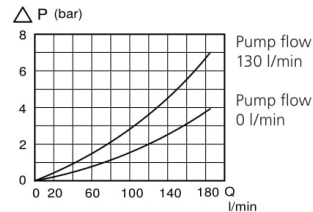


Pressure drop P - AB

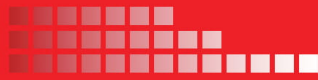
Oil temperature/viscosity for all graphs: + 50°C / 32 cSt



Pressure drop P-T unloaded

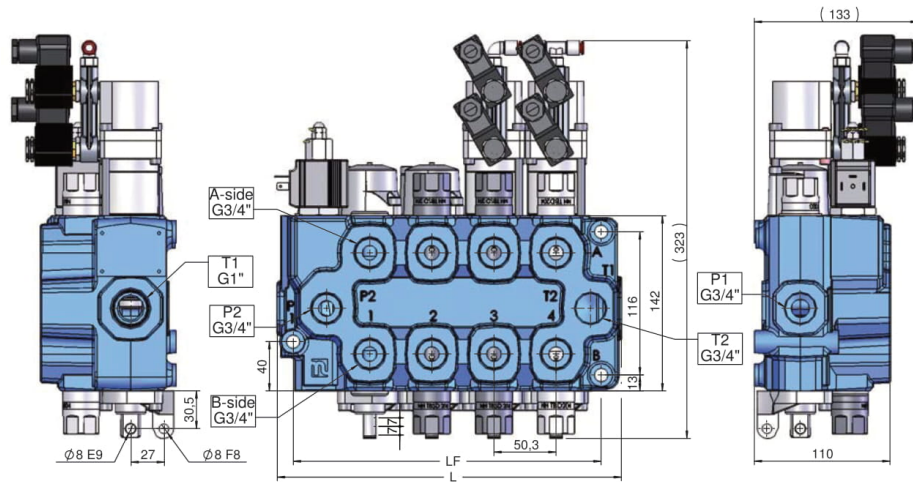


Pressure drop A-T Super Rapid 1-section valve



RM 270

Technical data - Dimensions, weight



Spool stroke +/- 7 mm
Float position 7 mm

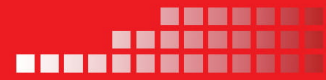
Weights, complete valve:

1 section	11 kg
2 sections	15 kg
3 sections	19 kg
4 sections	23 kg
6 sections	31 kg

Measurements	L mm	LF mm
1 section	128	100
2 sections	178,3	150
3 sections	228,6	200
4 sections	278,9	250
6 sections	379,5	350



Type	LA mm	LB mm
9	43	
10	43	
11	75	
13	75	
14	75	
P	109	
P5	157	
EP	109	
MSLA	48,5	
M19		38,5
M211		32
M212		55,5



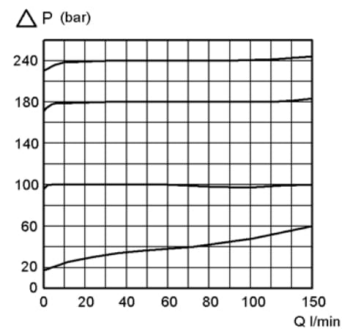
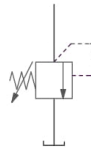
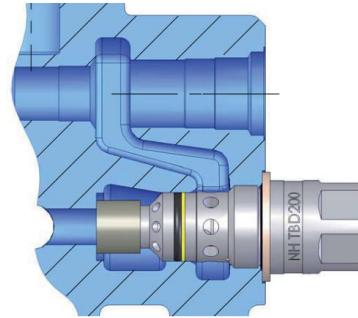
Main relief valve

Main relief valve TBD200

The TBD200 is a differential area, direct acting relief valve for the main circuit. It is adjustable and sealable.

Setting range: 35 - 300 bar (3,5 - 30,0 MPa).

Setting range step: 5 bar.



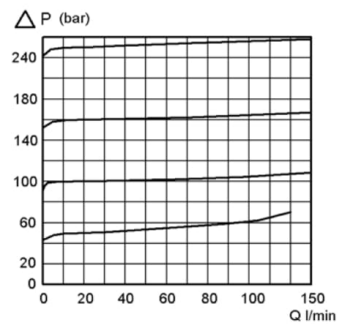
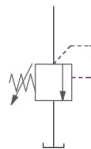
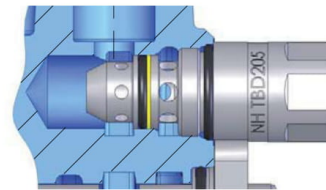
Service port valves

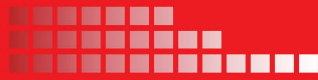
Port relief valve TBD205

The TBD205 is a differential area, direct acting relief valve for the secondary circuit. It is adjustable and sealable.

Setting range: 40 - 300 bar (4,0 - 30,0 MPa).

Setting range step: 10 bar.





RM 270

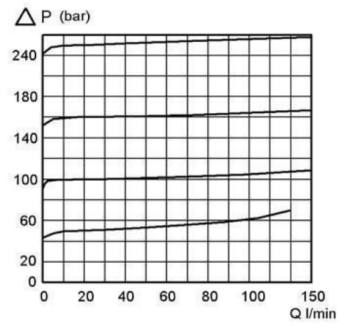
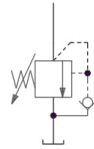
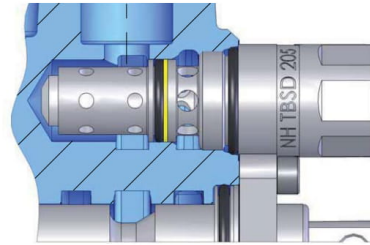
Service port valves

Port relief and anticavitation valve TBSD205

The TBSD205 is a differential area, direct acting relief and anticavitation valve for the secondary circuit. It is adjustable and sealable.

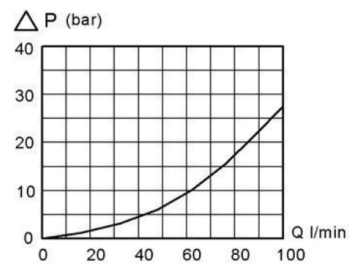
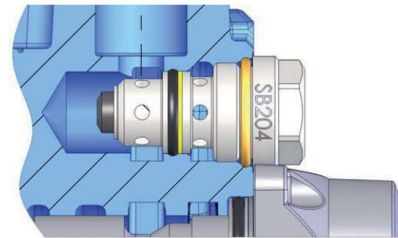
Setting range: 40 - 300 bar (4,0 - 30,0 MPa).

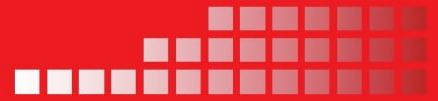
Setting range step: 10 bar.



Anticavitation valve SB204

The anticavitation valve service to ensure that, in the event of a lower pressure in the cylinder port than in the tank, oil can be drawn from the system oil tank to the consumer.





Electrical unloading valve

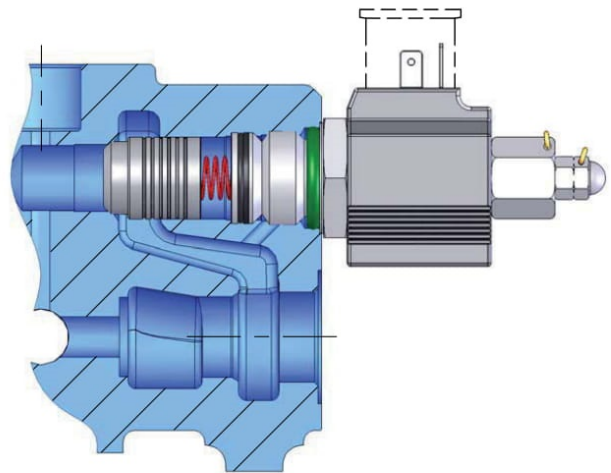
RM 270

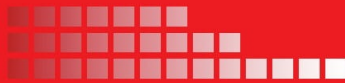
Data

Power consumption.....	14 W
Rated voltage	12 and 24 V
Max voltage variation	+/- 10%
Duty factor	100%
Connection	Hirschmann ISO 4400-DIN 43650
Protection class.....	IP65

IS12
manual override with push operation 12V.

IS24
manual override with push operation 24V.





RM 270

Spool controls - A-side

Spool control 9

9 Spring centering.
9W for cable control.



Spool control 10

Detents at positions 1, 2 and 3.



Spool control 11

Spring centering with detent at position 4.



Spool control 13

Spring centering with detent at position 2.



Spool control 14

Spring centering with detent at position 3.



Spool control P

Pneumatic*.



Spool control EP

Electro/pneumatic on/off**.



* ConnectionG 1/8" BSP

Spool control P5

Pneumatic control with detent at position 4*.



Spool control EP5

Electro/pneumatic on/off with detent in position 4**.



Spool control MSLA

Spool control, stroke limitation.



** Power consumption4,8 W
Rated voltage24 V
Max voltage variation+/- 10%
Duty factor100%
Connection according to EN175301-803/B
Protection class IP65

Spool controls - B-side

Bracket M19

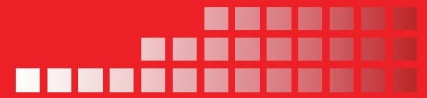
Bracket for 3-pos. spool.

Bracket M212

Bracket for 4-position spool with manual control.

Bracket M211

Bracket for 4-position spool and for 4-pos EP-spool control.



Spools

RM 270

	Spools for general use	Code
Function		Code
	Double acting spool	10XAA1
	Slewing spool, gentle operating	10XK51
	Single acting spool P - A	20XAA1
	Single acting spool P - B	20XAA2
	Motor spool	40XAA1
	Motor spool A - T	50XAA2
	Motor spool B - T	60XAA1
	Double acting spool with 4th pos. for float	30XAA1
	Regenerative spool	80XAA1
	Single acting "SR" *185 lpm lowering flow	713TA1

The RM 270 spools are available in variety of flows and styles to accommodate most design requirements. Since the development of spools is a continuous process and all available spools are not described in this data sheet, contact Nordhydraulic for advice on choosing spools in order to optimize your valve configuration.

Generally the spools are divided in 5 different flow ranges. In the table only the accessibility of different functions are shown. The letter indicating flow range is replaced with X, as some spool functions are available in several flow ranges.

- 3 = 20 - 40 lpm
- 4 = 30 - 50 lpm
- 5 = 40 - 60 lpm
- 7 = 50 - 90 lpm
- 12 = 90 - 130 lpm

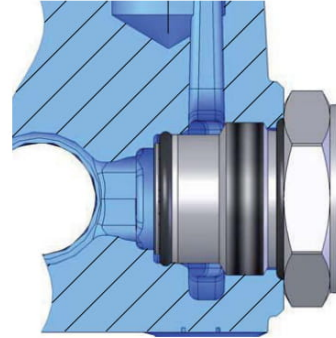
RM 270

High pressure carry-over

High pressure carry-over nipple SG25

The type SG25 series nipple is used for series mounting of valve blocks when pipe or hose is used between the blocks.

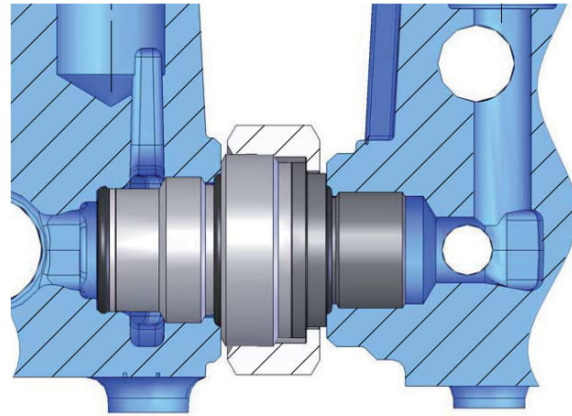
For RM 270 Super Rapid see page 12.



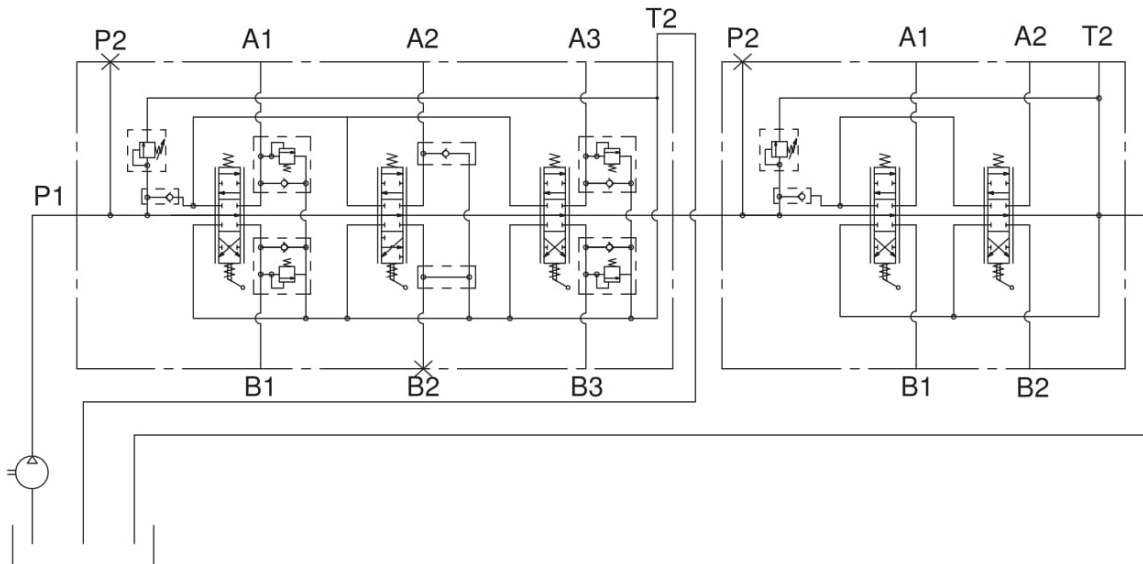
High pressure carry-over flange kit SC250

The type SC250 flange kit is used to connect valve blocks in series, without any pipe or hose.

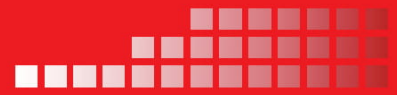
For RM 270 Super Rapid see page 12.



High pressure carry-over



When high pressure carry over SG25 or SC250 is used for series mounting, the tank connection T2 for the first valve must always be connected to the tank (see diagram above). Valve blocks connected in series give priority of flow to the first block in the series. This means that there will be no flow at block 2 if block 1 is fully activated.

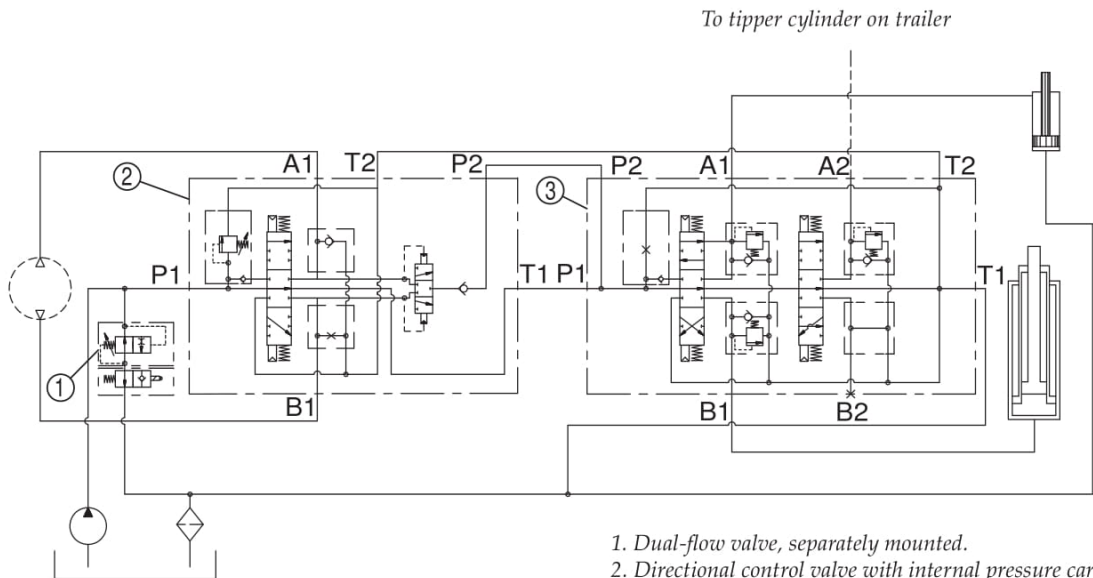
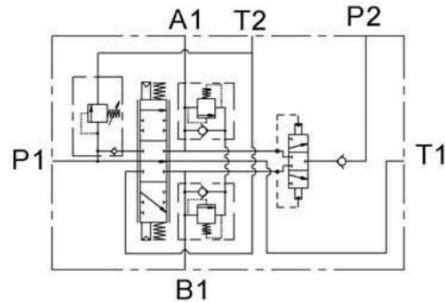


Integrated pressure carry-over function and extra check valve

The valve is made from a 1 section valve with a shuttle spool to create the pressure carry-over function, and an extra check valve in the pressure line. Carry-over pressure can be obtained from both A and B port, depending of which is used.

The built in shuttle spool makes it possible to use the return flow from, for instance, a hydraulic winch motor on a cable lift, to regulate the downward movement of the tipper cylinder at the same time as the winch pulls the platform on the frame.

The extra check valve prevents the oil from running backwards in the system when only the tipper valve is used.



To tipper cylinder on trailer

1. Dual-flow valve, separately mounted.
2. Directional control valve with internal pressure carry-over function and extra check valve.
3. Directional control valve for tipper function.

RM 270

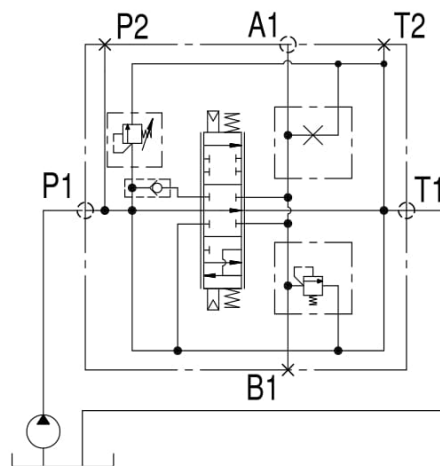
"Super Rapid" - tipping valve configuration

The "Super Rapid" tipping valve is optimized for maximum lowering flow. The multi section valves allows lowering at the same time as an other function is pressurised. The valve can be equipped for variable pump operation. Due to a strengthening of the valve body the valve permits high continuous working pressure. The valve is available with 1, 2 and 3 sections.

It is not possible to use a high pressure carry-over nipple SG25 or flange kit SC250 in a RM 270 Super Rapid valve with only one section.

Each valve section can be provided with a pressure relief valve, an anticavitation valve or a combination of these.

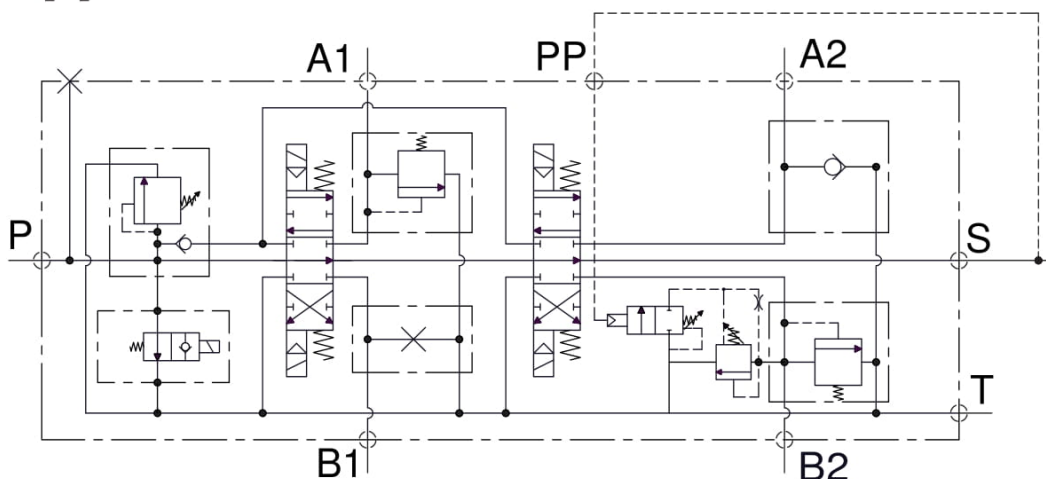
The valve can be provided with pneumatic or electro/pneumatic spool control.



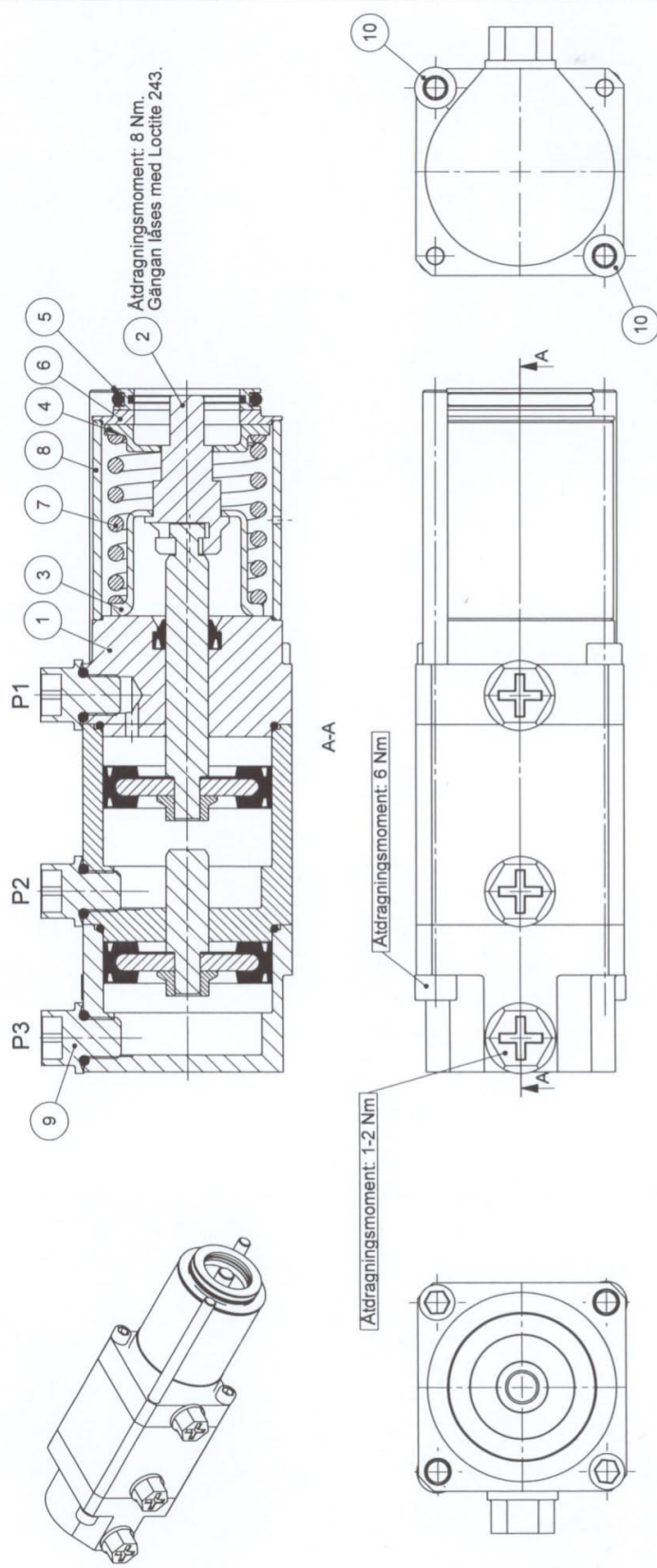
Technical data

Max. system pressure	300 bar (30,0 MPa)
Max return pressure	25 bar (2,5 MPa)
Lowering flow	185 l/min

Valve configuration for refuse truck application



The valve can be configured for refuse vehicles. Typical is 1 four-sectional valve or 2 two-sectional valves for the functions tail gate, packing and exhaust. The pressure to the exhaust cylinder is controlled of the packing pressure so that the pressure is low during the packing cycle but high during exhaust. The circuit shows a two sectional valve with the functions tailgate on section 1 and exhaust on section 2. The valve for the packing functions is supplied from port S.



ITEM NO.	QTY.	PART NO.	DESCRIPTION	MATERIAL
1	1	8125-803825	Pneumatisk cylinder smst.	
2	1	3070-6929770	Kloskruv	
3	1	3060-6929761	Fjäderstyrning	
4	1	3060-260236	Fjäderstyrning	
5	1	8098-000020	Slidtätning CR	
6	1	3065-6914608	Frontbricka	
7	1	8150-6950124	Fjäder	
8	1	3020-6929788	Distansrör	
9	3	8030-450540	Skyddspropp	
10	2	8300-061402	Sexkantstålskruv ISO 4762 - M6x140 - 8.8 - fzb	

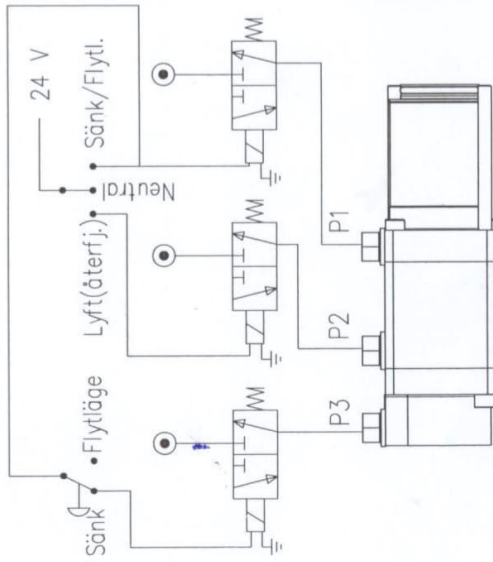
Anm.		Tolerans för ej tol. satta mått			
Vinkel	Radlar				
Ytjämnhet	Ovr.mått	A	080425	13204	MM
Konst.	Riad	mama			Skala 1:1
Material	Kontr.				Erstat
Berämn.	Slidkontroll	P5MK2			Datum: 2007-11-30
Art. Nr.	RM250, RM270				Rit.nr
	2175-803890				803890
					B.00



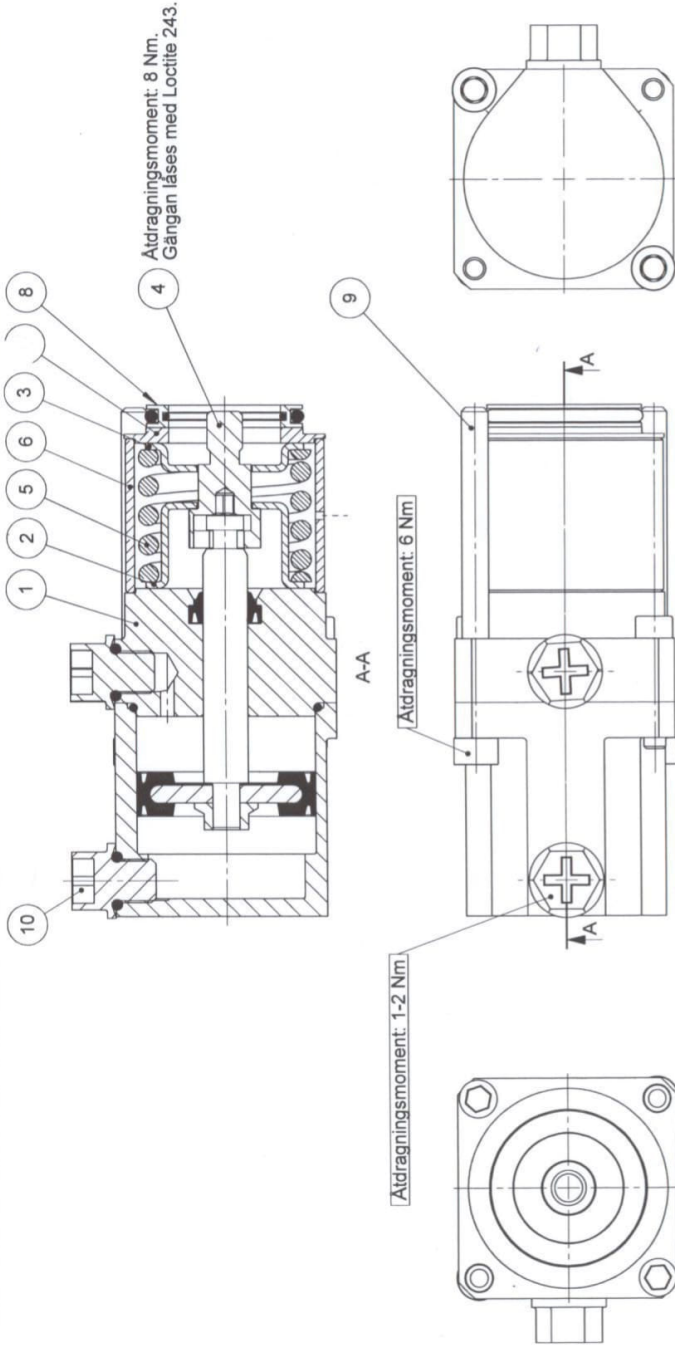
NORDHYDRAULIC AB KRANFORS SWELEN

Flöde	Funktion	P3	P2	P1
P → A	Lift	0 eller 1	0	0
A → P	Sänk	1	0	1
P → T	Flytläge	0	0	1
A/B → T	Neutral	0 eller 1	0	0

0=Tryckluft av
1=Tryckluft på



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ITEM NO.	QTY.	PART NO.	DESCRIPTION	MATERIAL
1	1	8125-803004	Luftcylinder kpl	
2	1	3060-260110	Fjäderstyrning hög	-
3	1	3060-260140	Fjäderstyrning låg	-
4	1	3070-260227	Kloskruv	
5	1	8150-6902421	Fjäder	SS 1774-05
6	1	3025-6914594	Adaptorrör	
7	1	3065-6914608	Frontbricka	
8	1	8098-000020	Slidtätning CR	
9	2	8300-060752	Sexkantstålskruv ISO 4762 - M6x75 - 8.8 - fzb	
10	2	8030-450540	Skyddspropp	

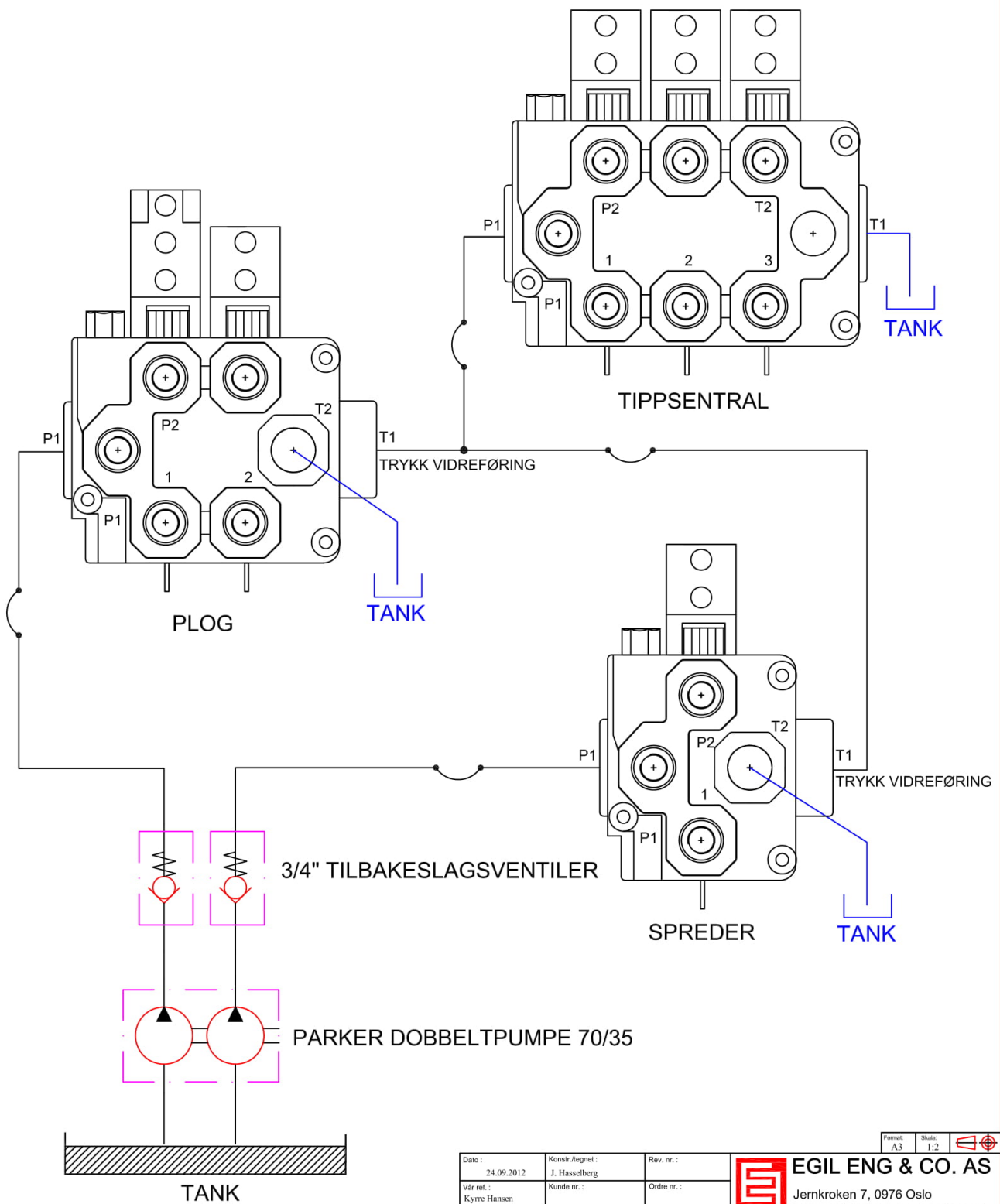
Anm.		Tolerans för ej lod satita mått	
Vinklar	Radier		
Ytjämnhet	Ovr.mått	A	080425
Konstr.	Ritad	mama	13204
			MM
			Skala 1:1
			AO
			Erstatter
			Datum 2008-04-15
			Ritm nr
			804292
			A



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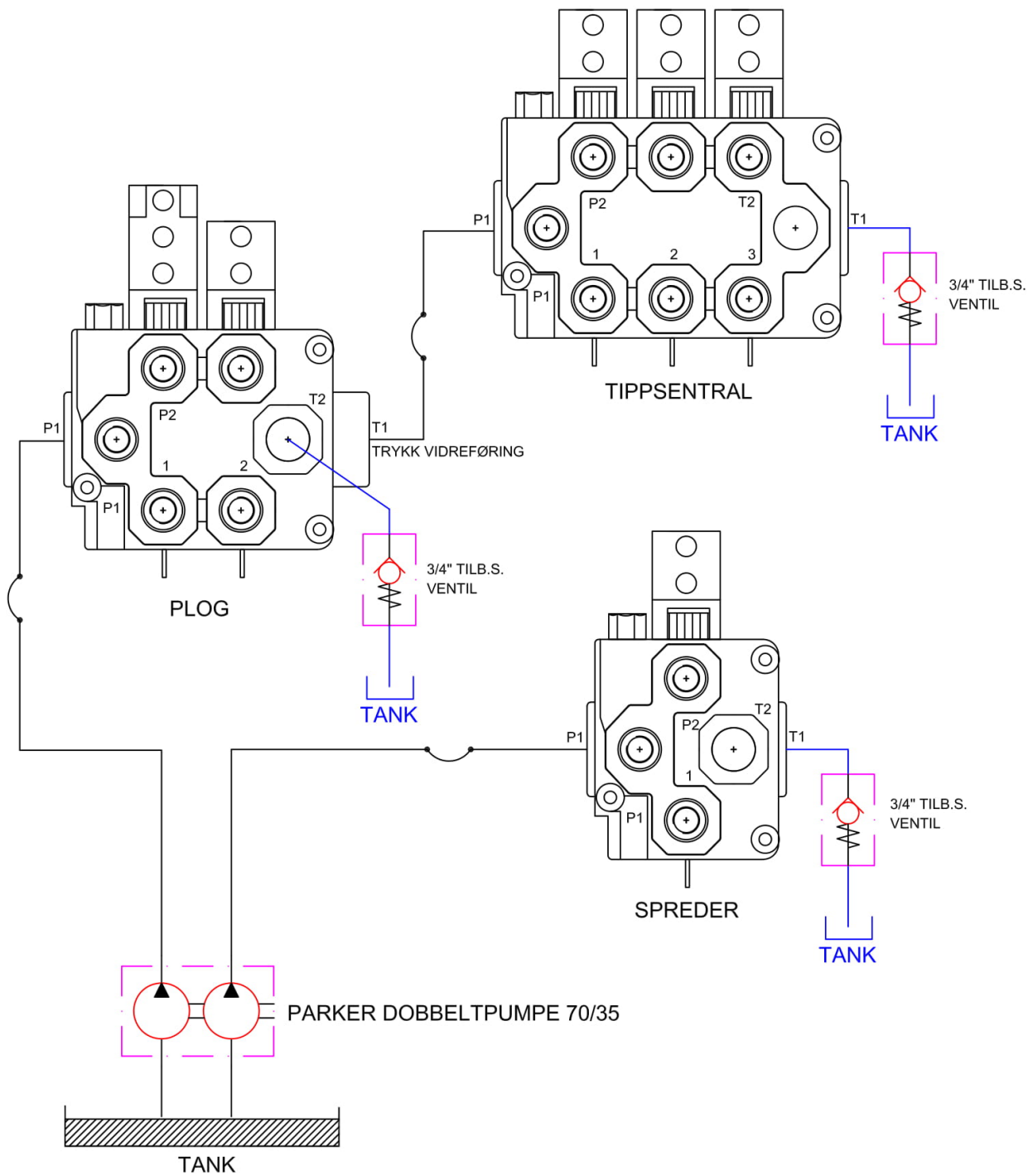
MONTERINGSANVISNING - DOBBELTKJØRING



Dato : 24.09.2012	Konstr./tegnet : J. Hasselberg	Rev. nr. :
Vår ref. : Kyrre Hansen	Kunde nr. :	Ordre nr. :
Titel : Monteringsanvisning for plogstyring med spredar og dobbeltpumpe, dobbeltkjøring		
Henvisning :		Kommentar :

Format : A3	Skala : 1:2	
EGIL ENG & CO. AS		
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Tegn. nr. : E1209012		
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Vår ref.: Kyrre Hansen	Kunde nr.:	Ordre nr.:
Titel: Monteringsanvisning for plogstyring med spredner og dobbeltpumpe, enkeltkjøring		
Henviing:	Kommentar:	

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