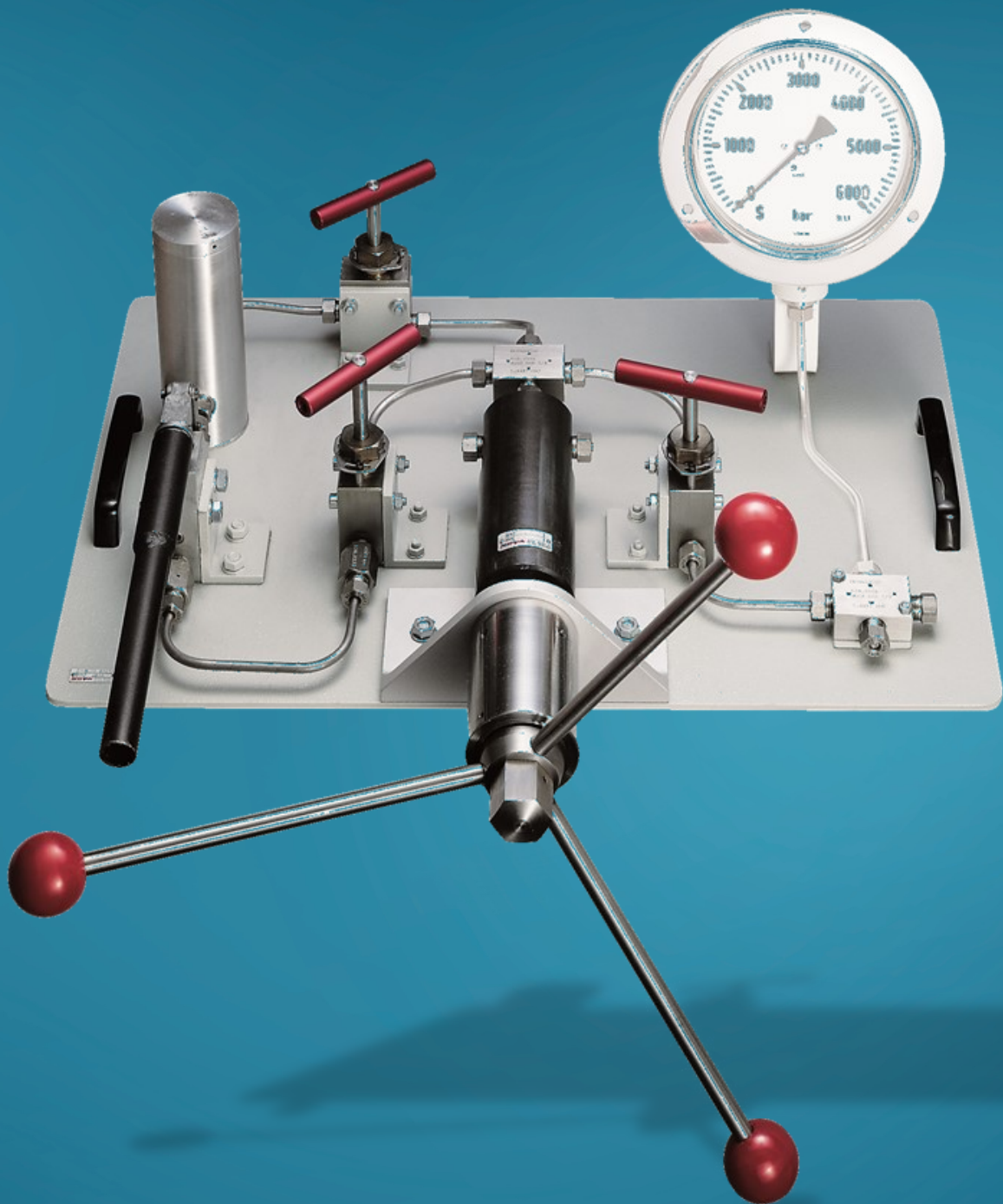


NOVA SWISS



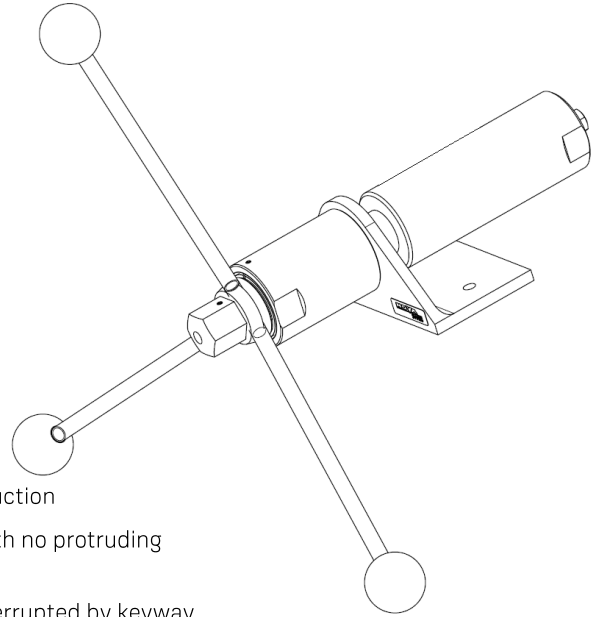
UP TO 7000 BAR (101500 psi)

HAND PUMPS

HAND PUMP SYSTEMS

Hand Pumps

Nova Swiss manufactures a range of screw-type manual pumps up to 7000 bar. They are particularly well-suited to use as a pressure generator for smaller high-pressure systems. They are ideal for all applications in which common high-pressure media are used, including those with low viscosity. Pumps can be used anywhere and is not dependent on a compressed air or power supply. The finely threaded spindle allows precise adjustment to the desired pressure. Operation is facilitated by three long crank arms. The stem does not rotate, thus significantly extending the longevity of the packing.



Hand Pump Features:

- Nonrotating spindle for longer packing life
- Easy retightening of the high-pressure seal
- No electrical, hydraulic, and pneumatic power source is required
- Large three handle flywheel for easy operation
- Ample sizing of components with high safety factor of components
- Fine thread of the plunger allows a very precise movement and adjustment of the desired pressure
- Stainless steel construction
- All enclosed design with no protruding spindle
- Spindle thread not interrupted by keyway
- Large baseplate to easily attach the pump to a flat support
- Recommended for all common high-pressure fluids even of low viscosity

Applications:

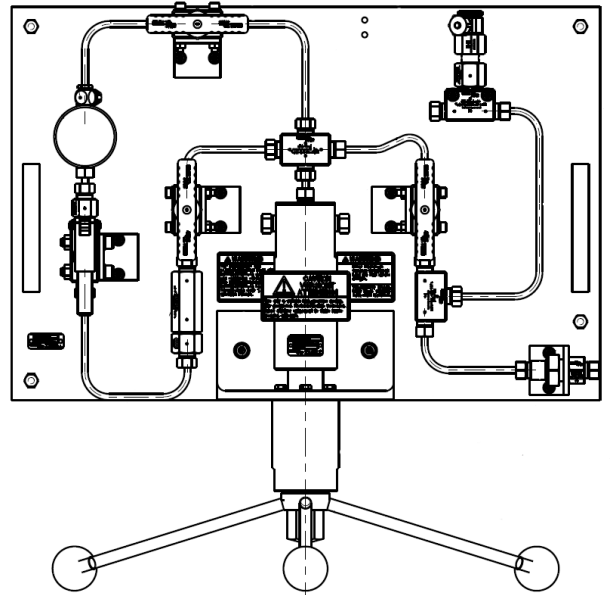
- R&D
- Hydraulic testing
- Calibration of sensors and switches

	Nova Part No.	550.0202-1	550.0301-1	550.0400-2 550.0400-12	550.0400-001
MAWP bar (psi):		2000 (29000)	4000 (58000)	7000 (101500)	5600 (81200)
Operating temperature °C (F):		+10 / +40 (+48 / +96)			
Dimensions mm (inch):		360 x 180 x 90 (14.7 x 7.2 x 3.5)			
Ø of flywheel arms mm (inch):		~ 609 (23.7)			
Weight approx. Kg (lb):		~ 8.7 (19.1)			
Approved fluids:		Kerosene, Hydraulic oil on mineral oil base Distilled water			
Pump stroke volume cm³ (cu.in):		10 (0.61)	5 (0.31)	2.5 (0.15)	2.5 (0.15)
Volume per rotation cm³ (cu.in):		0.3 (0.02)	0.15 (0.01)	0.08 (0.005)	0.08 (0.005)
No. of revolutions max.:		30			
Max. pump stroke mm (inch):		65 (2.56)			
Ø piston mm (inch):		14.3 (0.6)	10.1 (0.4)	7.5 (0.3)	7.5 (0.3)
Max. torque @ MAWP Nm (lbft):		60 (44.3)			
Max. pressure pre-fill pump bar (psi)		250 (3625)			
Prefill tank volume cc (gal):		200 (0.0002)			
Permitted air humidity:		25–80% non condensing			
Noise level dBA		70			
High-pressure outlet connection:		4E (tube 1/4" - 7/18"-20UNF)			

Hand Pump Systems

Hand pump systems are designed Plug & Play and are ready for use. Systems are available with all Nova Swisshand pumps and can be completed with several standard options allowing end user to select a system suitable for the proper application.

All the components of the system are installed on aluminium base plate, including one pre-fill liquid pump, high-pressure liquid pump, 3 manual control needle valves (isolation low pressure prefill pump, isolation high-pressure circuit and tank drain valve), tank for the prefill pump, two high-pressure outlet connections one for high-pressure fluid and another tapped connection for gauge or pressure transducer option. Each system is complete of a rupture disc to prevent over pressurization of the circuit.



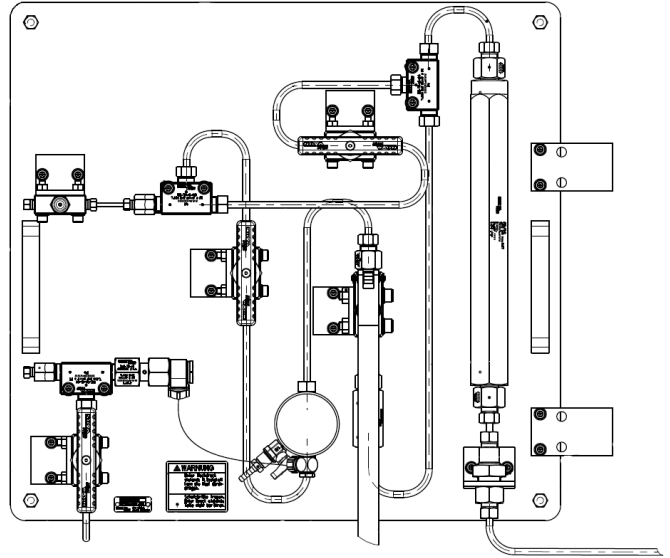
	Nova Part No.	565.0275	565.0277	565.0276	565.0286
MAWP bar (psi):		2000 (29000)	4000 (58000)	7000 (101500)	5600 (81200)
Operating temperature °C (F):		+10 / +40 (+48 / +96)			
Base plate dimentions mm (inch):		600 x 400 x 210 (23.6 x 15.8 x 5.3)			
Dimensions with flywheel arms mm (inch):		600 x 593 x 590 (23.6 x 23.4 x 23.2)			
Weight approx. Kg (lb):		~ 25 (55)			
Noise level dBA		70			
Noise level breakage rupture disc dBA		100			
Rupture disc set bar (psi):		2500 (36250)	4500 (65250)	7000 (101500)	7000 (101500)
High-pressure outlet connection:		4E (tube 1/4" - 7/18"-20UNF)			

Options Hand Pump Systems

	Nova Hand Pump System Part No.	565.0275	565.0277	565.0276	565.0286
MAWP bar (psi):		2000 (29000)	4000 (58000)	7000 (101500)	5600 (81200)
Gauge kit:		562.0361-25	562.0361-50	N/A	N/A
Gauge only:		5.4914.078	5.4914.079	N/A	N/A
Pressure transducer kit:		Contact Nova	Contact Nova	Contact Nova	Standard
Pressure transducer only:		Contact Nova	Contact Nova	Contact Nova	Contact Nova
Pressure visualizer kit:			9.4914-084		Standard

Separator Unit Hand Pump Systems

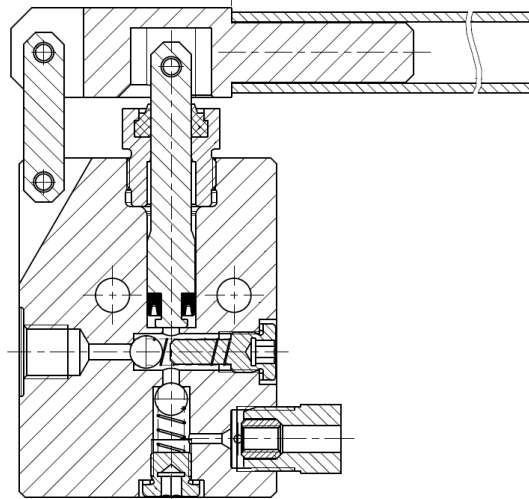
The separator unit allows customers to perform density measurements on components with a different fluid from the fluid used for pressurisation. Desired fluid is added in the tank in the unit and the pressure is increased initially with the hand pump included in the separator unit and after with the high-pressure spindle pump included in the Hand Pump System, mixing of two fluids is avoided by the separator cylinder included in the separator unit.



Nova Hand Pump System Part No.	565.0275	565.0277	565.0276	565.0286
MAWP bar (psi):	500 (7250)		Not available	
Separator Unit Part No.	562.0402		Not available	

Pre-fill Hand Pump

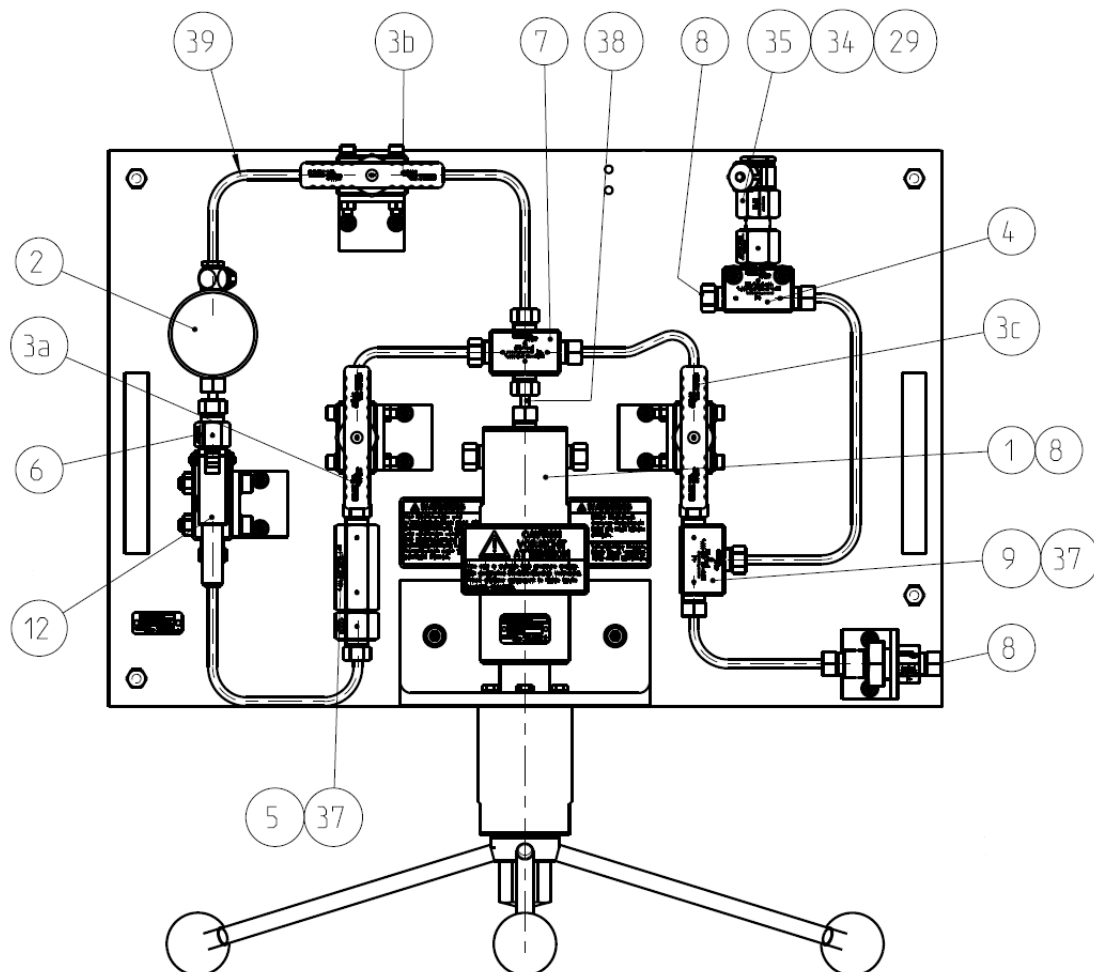
The Nova Swiss pre-fill pump is used to build up pressure up to 250 bar (3625 psi) of liquids. It is commonly used on all Nova Swiss hand pump systems and separator unit system.



Nova Part No.	555.0232
MAWP bar (psi):	250 (3625)
Operating temperature °C (F):	+10 / +40 (+48 / +96)
Dimensions with lever up mm (inch):	390 x 30 x 370 (15.4 x 1.2 x 14.6)
Dimensions with lever down mm (inch):	460 x 30 x 125 (18.1 x 1.2 x 4.9)
Weight approx. Kg (lb):	1.7 (3.74)
Approved fluids:	Kerosene, Hydraulic oil on mineral oil base, distilled water
Pump stroke volume cm ³ (cu.in):	2 (0.12)
High-pressure outlet connection:	4E (tube 1/4" - 7/18"-20UNF)

Spare Parts for Hand Pumps Systems

Nova Hand Pump Part No.	Pos.	Q.ty	550.0202-1	550.0301-1	550.0400-2 / -12	550.0400-001
Nova Hand Pump System Part. No.			565.0275	565.0277	565.0276	565.0286
Oil Tank:	2	1			580.3041	
Needle valve:	3	3			NV1-70-4E	
Tee:	4	1			TEE-70-4E-100	
Check valve:	5	1			CVP-70-4E	
Adapter:	6	2			AMF-10-4B4E	
Cross:	7	1			CRS-70-4E	
Plug:	8	4			XX.0139-10	
Tee:	9	1			TEE-70-4E	
Pre-fill hand pump:	12	1			555.0232	
Bulkhead:	13	1			BLK-70-4E	
Flexible tube:	29	1			5.7236.007	
Rupture disc:	34	1	521.9590-21	521.9590-30	521.9590-61	521.9590-38
Safety head:	35	1			SHD-70-4E	
Nipple:	37	2			SNP-100-4	
Nipple:	38	1			SNP-60-4	
Radius nipple:	39	1		RNP-100-4		515.0329-8
Digital gauge with housing:		1		N/A		5.4914.084
Pressure transducer:		1		N/A		5.1539.035
Wire:		1		N/A		5.3888.023
Seal kit hand Pump:		1	552.0030	552.0031		552.0032-001



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