News AMF Hydraulic / 2021

Martin Tinger / AMF

> Agenda OG 6 new Catalog and Productnews

New Catalog

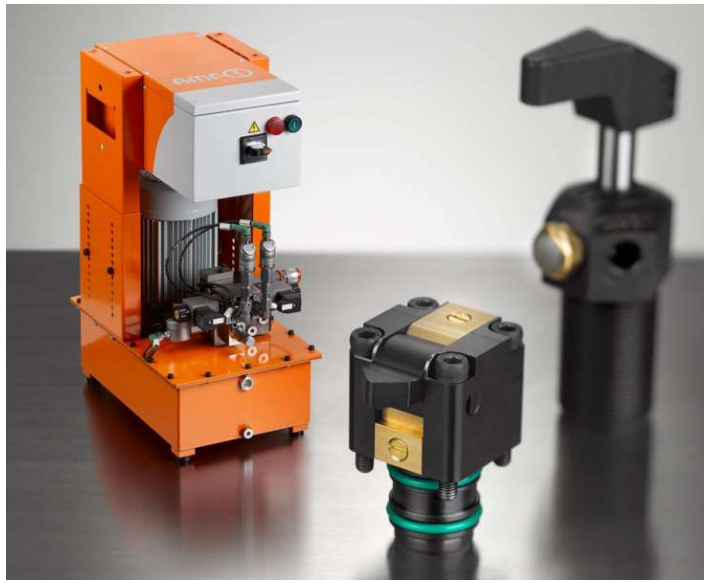
> Hübners Legend

> Changes in Catalog

> News in Catalog

Sonstiges

> Questions



> New Catalog

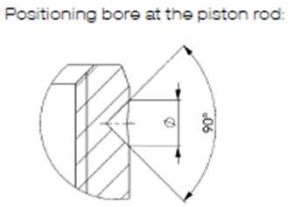
new Catalog:

- > from **Hübners Legend**
- > we came to **HOME** OF **CLAMPING**
- > expended from 332 to 364 Pages
- > Main thing, new clear division in accessories

> New Catalog

Changes:

> P.100 and 120 additonal Drawings



> P.283 change to 313 Assembly example extension

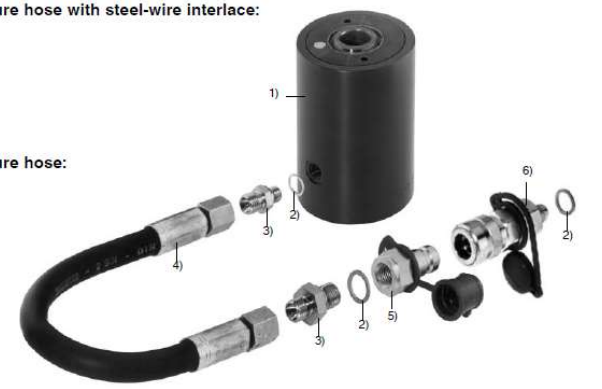
Assembly example for high pressure hose with steel-wire interlace:

1) Hollow-rod cylinder 6920
2) Sealing ring DIN 7603A
3) Screw-in fitting 6994-05 without union nut
4) High pressure hose 6985K
5) Connector 6990-G1/4S
6) Sleeve 6990-G1/4M

Assembly example for high pressure hose:

1) Hollow-rod cylinder 6920
2) Sealing ring DIN 7603A
3) Screw-in nipple 6993
4) High pressure hose 6985
5) Connector 6990-G1/4S
6) Sleeve 6990-G1/4M

CAD



Subject to technical alterations.

> New Catalog

Changes:

> Page 108/109, 110/111 strainghtened out on 2 Sides

> Old P.130 → New P.134 new Size 6958E

No. 6958E-XX

Vertical clamp, cartridge flange

Double-acting,
max. operating pressure 250 bar,
min. operating pressure 15 bar

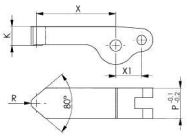
CAD

Order no.	Article no.	Piston force F5 at 100 bar [kN]	Piston force F5 at 250 bar [kN]	Vol. Sp [cm³]	Vol. Lo [cm³]	Piston dia. [mm]	eff. piston area Sp [cm²]	eff. piston area Lo [cm²]	Weight [g]
328013	6958E-20	3,1	7,8	6,6	2,3	20	3,1	1,10	350
328039	6958E-30	7,0	17,5	22,6	7,8	30	7,0	2,54	1100
562196	6958E-50	19,6	49,0	93,3	37,1	50	19,6	7,8	3850

Sp = clamp, Lo = unclamp

No. 6958E-XX-0X

Clamping arm out of steel



CAD

Order no.	Article no.	Clamping force at 100 bar [kN]	Clamping force at 250 bar [kN]	X	X1*	K	P	R	Weight [g]
328054	6958E-20-00-01	1,38	3,46	28	13,7	10	16	3	66
328070	6958E-20-00-02	1,11	2,72	35	13,7	10	16	3	74
328096	6958E-20-00-03	0,92	2,30	42	13,7	10	16	3	82
328062	6858E-30-00-01	3,19	7,96	41	20,5	15	24	5	215
328088	6958E-30-00-02	2,56	6,40	51	20,5	15	24	5	242
328104	6958E-30-00-03	2,14	5,35	61	20,5	15	24	5	270
NEW! 562252	6958E-50-00-01	9,25	23,13	64	33,5	23	40	6	844
NEW! 562253	6958E-50-00-02	7,50	18,74	79	33,5	23	40	6	950
NEW! 562254	6958E-50-00-03	6,30	15,75	94	33,5	23	40	6	1056

*X1 = Lever length at 90°

Design:
Case-hardening steel, case-hardened.

Application:
For vertical clamps 6958E.

Note:
Clamping pressure, leverage, flow volume and clamp arm weight must always be observed.

> New Catalog

Changes:

> Page 175, new product examples

> Page 212, 6964H Support Element 2 new sizes

No. 6964H

Support Element, cartridge flange

Normally retracted. Hydraulic advanced. Spring force for contact, max. operating pressure 350 bar, min. operating pressure 50 bar.

Order no.	Article no.	Contact force F1 [N]	Support force at 350 bar [kN]	Stroke C [mm]	max. oil flow rate [l/min.]	Vol. [cm³]	Md max. [Nm]	Weight [g]
165225	6964H-04-1	4,4-26,7	4,4	6,5	2,13	1,3	40,5	180
562248	6964H-04-10	4,4-26,7	6,2	12,5	2,13	1,5	40,5	187
66720	6964H-11-1	13,5-44,5	11,0	6,5	2,13	2,0	54,0	380
562249	6964H-11-10	13,5-44,5	13,4	12,5	2,13	2,3	54,0	417
165241	6964H-17-1	27,0-53,0	17,0	12,5	2,13	9,7	136,0	1150

> Page 224,9641KP 2 new sizes

No. 6941KP

Swing clamp, top-flange-mounting

Double-acting, max. operating pressure 100 bar, min. operating pressure 20 bar.

> New Catalog

Changes Accessories:

> Page 245, new overview accessories

> Valves for pressure control and supply valves

ACCESSORIES –
VALVES FOR PRESSURE REGULATION AND SEQUENCE CONTROL

- > PRESSURE CONTROL SEAT VALVES
- > SEQUENCE VALVES
- > PRESSURE RELIEF VALVES
- > SUPPLY VALVES
- > DELAY VALVES

PRODUCT OVERVIEW:

Type	Designation	Operating pressure min. - max. [bar]	Setting pressure min. - max. [bar]	Setting range [s]	No. of models	Oil connection
6917-1	Pressure reducing valve	40 - 400	20 - 370	-	1	o-ring
6917R/F	Pressure control seat valve	40 - 500	8 - 380	-	4	thread / o-ring
6917E	Pressure control seat valve	40 - 500	8 - 380	-	4	screw-in thread
6918	Sequence valve	500	8 - 500	-	10	thread / o-ring
6918-30/-40	Sequence valve	350	20 - 270	-	6	screw-in thread
6918-10	Pressure relief valve	30 - 500	30 - 500	-	2	thread
6918-60-10	Sequence valve	40 - 250	-	1-10	1	o-ring
6918-100/-110	Delay valve	35 - 350	-	3-7	2	o-ring / thread

PRODUCT EXAMPLES:

NO. 6917-1 AND 6917E

> holding force: 0,5 kN
> clamping stroke: 12,0 mm

NO. 6918 AND 6918-3

> holding force: 0,8 kN
> clamping stroke: 7,5 mm

NO. 6918-60-10 AND 6918-100

> holding force: 0,78 kN
> clamping range: 2 - 10 mm

> New Catalog

Changes Accessories:

> Page 250/251, Sequence Valves, getting divided between O Ring conection and pipeline connetction

No. 6918

Sequence Valve

6918-3 for O-ring connection,
6918-12 for O-ring connection,
6918-4 connection combination (pipeline),
6918-5 connection combination (pipeline).
Static overload capacity ~1.5xp max.

Order no.	Article no.	min. operating pressure [bar]	max. operating pressure [bar]	Q [l/min]	Direction of flow	Ambient temp. [°C]	Viscosity [cSt]	OR-1 O-ring Order No.	Weight [g]
66100	6918-3	30	500	20	P-A	-40 - +80	10-500	173096	750
326983	6918-12	16	160	20	P-A	-40 - +80	10-500	173096	750
320135	6918-4	30	500	20	P-A	-40 - +80	10-500	173096	750
320143	6918-5	30	500	20	P-A	-40 - +80	10-500	173096	750

Design:

Steel body, nitrided. Sealing nut galvanized. All functional components hardened and ground. For sequence valve 6918-3 and 6918-12, the oil is supplied via conduits drilled in the clamping device.
The following valves are required for combining several sequence valves:
6918-3 inlet valve
6918-4 series valve
6918-5 end-of-line valve
The oil is supplied via a threaded connection.

Application:

The pressure sequence valve is used in cases where another consumer is connected to the circuit after a set pressure has been reached. If several sequence valves are employed in the circuit, please note that the pressure in this circuit always adjusts to the last pressure stage.
For this type, the switching pressure remains largely constant, regardless of the outflow pressure on the outlet side (cylinder side).

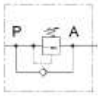
Note:

During disassembly of the pressure control valve, first loosen SW 24 then SW 22. Installation is carried out in reverse order with the specified tightening torque. Increasing the preload of the compression spring by turning the slotted screw results in a greater pressure difference between P and A. The fastening bolts are not supplied as standard.

No. 6918

Sequence Valve

for pipeline connection.
Static overload capacity ~1.5xp max.



Order no.	Article no.	min. operating pressure [bar]	max. operating pressure [bar]	Q [l/min]	Direction of flow	Ambient temp. [°C]	Viscosity [cSt]	Weight [g]
325068	6918-6	8	80	20	P-A	-40 - +80	10-500	750
326306	6918-11	16	160	20	P-A	-40 - +80	10-500	750
66517	6918-2	30	500	20	P-A	-40 - +80	10-500	750

Design:

Steel body, nitrided. Sealing nut galvanized. All functional components hardened and ground. Oil supply via threaded port.

Application:

The pressure sequence valve is used in cases where another consumer is connected to the circuit after a set pressure has been reached. If several sequence valves are employed in the circuit, please note that the pressure in this circuit always adjusts to the last pressure stage.
For this type, the switching pressure remains largely constant, regardless of the outflow pressure on the outlet side (cylinder side).

Note:

For disassembly of the pressure valve please release first SW (AF) 24, then SW 22. For assembly please use reverse sequence and observe max. seating torque. The pressure difference between P and A depends on the preload of the adjustment spring.

> New Catalog

Changes Accessories:

> Page 257, neue overview accessories

> For determing the direction of the Oil flow and pressure monitoring

ACCESSORIES –
FOR DETERMINING THE DIRECTION OF THE OIL FLOW AND PRESSURE MONITORING

> MANUAL SEAT VALVES
> DIRECTIONAL SEAT VALVES
> PRESSURE SWITCHES

PRODUCT OVERVIEW:

Type	Designation	max. operating pressure min. - max. [bar]	Version	Actuation	No. of models	Oil connection
6910-10/-11	Manual seat valve	10 - 500	2/2-way seat valve 3/2-way seat valve	manual	2	o-ring
6910-06	Seat valve	10 - 500	3/2-way seat valve	electrical	2	o-ring
6910-06	Seat valve	10 - 450	3/2-way seat valve	electrical	2	o-ring
6910A-07 6911A-07	Seat valve	10 - 400	3/3-way seat valve 4/3-way seat valve	electrical	1 1	o-ring
6982E	Electronic pressure switch	0 - 400	-	electrical	5	thread
6982E	Electronic pressure switch	0 - 600	-	electrical	2	thread
6982	Piston pressure switch	10 - 450	-	mechanical	2	o-ring
6982	Piston pressure switch	12 - 630	-	mechanical	4	o-ring

PRODUCT EXAMPLES:

NO. 6910-10 AND 6910-06-02

> max. operating pressure: 500 bar

NO. 6910A-07-01

> max. operating pressure: 400 bar

NO. 6982E AND 6982

> max. operating pressure: 630 bar

> New Catalog

Changes Accessories:

> Page 267, new overview accessories

> Valves for changing direction and volume flow

ACCESSORIES –
VALVES FOR CHANGING DIRECTION AND VOLUME FLOW CONTROL

- **CHECK VALVES (HYDR. UNLOCKABLE)**
- **SHUTTLE VALVES**
- **THROTTLE/CHECK VALVES**
- **SHUT-OFF VALVES**

PRODUCT OVERVIEW:

Type	Designation	Max. operating pressure [bar]	Q [l/min.]	Differential pressure [bar]	No. of models	Oil connection
6916-04	Line check valve	630	12	3	1	pipe
6916-05/-06	Threaded check valve	630	12	3	2	thread / pipe
6916-07	Shuttle valve	630	18	12	1	pipe
6916-08	Check valve	700	15	8	1	thread
6916-08-10	Check valve	700	20	-	1	o-ring
6916-09	Throttle/Check Valve	400	15	-	1	thread
6916-10	Throttle/Check Valve	400	18	-	1	thread
6916-11	Shut-off valve	600	18	-	1	thread
6916-12	Throttle/Check Valve	350	5,7	-	2	screw-in

PRODUCT EXAMPLES:

NO. 6916-04 AND 6916-07

> Max. operating pressure: 630 bar

NO. 6916-08 AND 6916-08-10

> Max. operating pressure: 700 bar

NO. 6916-09 AND 6916-12

> Max. operating pressure: 400 bar

> New Catalog

Changes Accessories:

> Page 273, new overview accessories

> coupling for loss-free media transmission

ACCESSORIES –
COUPLINGS FOR LOSS-FREE MEDIA TRANSMISSION

> THREADED-COUPLING ELEMENTS
> BUILT-IN COUPLING ELEMENTS
> PLUG CONNECTIONS

PRODUCT OVERVIEW:

Type	Designation	Max. operating pressure [bar]	Nominal bore	detachable under pressure	detachable pressure-free	No. of models
6989M	Screw-in coupling mechanism	350 500	3 5	•	•	4
6989N	Screw-in coupling nipple	350 500	3 5	•	•	4
6989ME	Built-in coupling mechanism	350 500 300	3 5 8	•	•	6
6989NE	Built-in coupling nipple	350 500 300	3 5 8	•	•	6
6994S	Plug connection	500	3 - 18	-	-	6

PRODUCT EXAMPLES:

NO. 6989M AND 6989N

> Max. operating pressure: 630 bar

NO. 6989ME AND 6989NE

> Max. operating pressure: 700 bar

NO. 6994S

> Max. operating pressure: 400 bar

> New Catalog

Changes Accessories:

> Page 281, new overview accesories

> for media transmission of rotating clamping devices

ACCESSORIES –
FOR MEDIA TRANSMISSION OF ROTATING CLAMPING DEVICES AND CLAMPING DEVICES THAT HAVE TO BE SEPARATED BY THE PRESSURE GENERATOR AFTER THE CLAMPING OPERATION

- ROTARY UNION, SINGLE PASSAGE
- ROTARY COUPLING, UNCONTROLLED AND CONTROLLED
- PALLET DECOUPLER BLOCK
- ACCUMULATOR

PRODUCT OVERVIEW:

Type	Designation	Max. operating pressure [bar]	Nominal bore	Connections inputs	Connections outputs	No. of models	Oil connection
6991-01/-02	Swivel joint, single passage	400	4	1	1	2	thread / pipe
6991	Rotary coupling, uncontrolled	350	5	6	6	6	thread
6992H-11	Rotary coupling, controlled	350	5	1	9	3	thread
6992H-21	Rotary coupling, controlled	350	5	2	18	3	thread
6919-2	Pallet decoupler block	400	4	2	4	1	thread
6919-20	Pallet decoupler block	400	4	3	4	1	thread
6919S	Accumulator	500	-	1	-	2	thread

PRODUCT EXAMPLES:

NO. 6991-02 AND 6991

> max. operating pressure: 400 bar
> max. rpm 25 [1/min.]

NO. 6919-2 AND 6919-20

> max. operating pressure: 400 bar

NO. 6919S

> max. operating pressure: 500 bar

> New Catalog

Changes Accessories:

> Page 295, new overview accesories

> For protecting pressure generators and hydraulic components

ACCESSORIES –
FOR PROTECTING PRESSURE GENERATORS AND HYDRAULIC COMPONENTS

> **FILTER**
> **FILTER WITH RECTIFIER CIRCUIT**
> **PLUG-IN FILTER**

PRODUCT OVERVIEW:

Type	Designation	Max. operating pressure [bar]	Filteration [µm]	No. of models	Oil connection
6981	Filter	400	10, 25, 40	3	thread
6981E	Filter	400	10, 25, 40	3	thread
6981G	Filter with rectifier circuit	400	10, 25, 40	3	thread
6981	Filter, cartridge design	400	10, 25, 40	3	cartridge design
6981E	Filter, threaded design	500	10, 25, 40, 100	4	threaded design
6981P	Filter, cartridge design	250	25, 40, 100	3	cartridge design

PRODUCT EXAMPLES:

NO. 6981 AND 6981E

> max. operating pressure: 400 bar

NO. 6981G

> max. operating pressure: 400 bar

NO. 6981, 6981E AND 6981P

> max. operating pressure: 500 bar

> New Catalog

Changes Accessories:

> Page 299, new overview accesories

> For pressure monitoring and venting of the hydraulic system as well as support control

ACCESSORIES –
FOR PRESSURE MONITORING AND VENTING OF THE HYDRAULIC SYSTEM AS WELL AS SUPPORT CONTROL

- **MEASURING COUPLING FOR THREADED CONNECTION AND PIPE CONNECTION**
- **MEASURING HOSE**
- **ADAPTER FOR PRESSURE GAUGE CONNECTION**
- **SUPPORT CONTROL, PNEUMATIC**

PRODUCT OVERVIEW:

Type	Designation	Max. operating pressure [bar]	Lenght [mm]	Thread	Stroke [mm]	No. of models	Oil connection
6990-20-G 6990-20-R	Measuring coupling	630	-	G1/8 / G1/4 M16 x 1,5	-	3	thread pipe
6990-20-S	Measuring hose	630	400 / 1000	M16	-	2	thread
6990-20-M/-A	Adapter for pressure gauge connection	630	-	G1/4	-	2	thread
6984-20	Support control, pneumatic	12	-	M12 x 1,25	6	1	thread
6984-30	Support control, pneumatic	2	-	M16 x 1,5	5	1	thread

PRODUCT EXAMPLES:

NO. 6990-20-G AND 6990-20-R

> max. operating pressure: 630 bar

NO. 6990-20-S AND 6990-20-M

> max. operating pressure: 630 bar

NO. 6984-20 AND 6984-30

> max. operating pressure: 12 bar

> New Catalog

Changes Accessories:

> Page 305, new overview accesories

> Hoses and pressure gauge for a secure connection

ACCESSORIES –
HOSES AND PRESSURE GAUGES
FOR A SECURE CONNECTION

- **HIGH-PRESSURE HOSES**
- **QUICK-RELEASE COUPLINGS**
- **PROTECTIVE CAPS FOR QUICK-RELEASE COUPLINGS**
- **HYDRAULIC OIL**
- **PRESSURE GAUGES**
- **MANIFOLDS WITH THREAD**

PRODUCT OVERVIEW:

Type	Designation	Max. operating pressure [bar]	Length min. / max. [mm]	Nominal bore NG	No. of models	Oil connection
6985 6985R	High pressure hose	400	300 / 3000	-	11	thread / pipe
6985K	High pressure hose with steel-wire interlace	500	300 / 3000	-	6	thread
6990	Quick disconnect coupler	400	-	4	6	thread
6990MK/SK	AI protection MK/SK	-	-	-	2	protection
6906	Hydraulic oil	-	-	5 liters	1	-
6983	Pressure gauge	600	-	-	8	thread / o-ring
6988	Manifold	400	-	6	3	thread

PRODUCT EXAMPLES:

NO. 6985 AND 6990-G1/4 M+S

> max. operating pressure: 400 bar

NO. 6983B AND 6983G

> max. operating pressure: 400 bar

NO. 6988

> max. operating pressure: 400 bar

> New Catalog

Changes Accessories:

> Page 311, new overview accesories

> screw connestions for a secure fitting

ACCESSORIES –
SCREW CONNECTIONS FOR A SECURE FITTING

> **SCREW-IN NIPPLES, DOUBLE NIPPLES AND TRANSITION PIECES**
> **THREADED PLUGS AND VENT SCREWS**
> **PIPE CONNECTIONS, HEAVY-DUTY SERIES**
> **PIPE CONNECTIONS, LIGHTWEIGHT SERIES**

PRODUCT OVERVIEW:

Type	Designation	Max. operating pressure [bar]	Length [mm]	Inside Ø	No. of models	Oil connection
6993	Male/male adaptor	400	-	4	3	thread
6996	Adaptor	400	-	4	5	-
6997	Reducer	400	-	5	1	thread
908	Screw plug	400	-	-	6	thread
DIN7603	Sealing ring	-	-	-	2	sealing ring
908S	Vent screw	-	-	-	2	thread
908S-30	Vent screw	400	-	-	2	thread
6994	Pipe connections, heavy-duty series	630	-	4	14	thread / pipe
6994	Pipe connections, lightweight series	315	-	3	9	thread / pipe
6994	Hydraulic pipe	315 / 630	2000	3 / 4	2	pipe

PRODUCT EXAMPLES:

NO. 6993 AND 6993-M12X1,5

> max. operating pressure: 400 bar

DIN 7603 AND NO. 908S

> sealing ring

NO. 6994-03 AND 6994-09

> max. operating pressure: 630 bar

> New Catalog

Changes Accessories:

> Page 321, new overview accesories

> For holding and securing workpieces and set screws for secure clamping

ACCESSORIES –
FOR HOLDING AND SECURING WORKPIECES AND SET SCREWS FOR SECURE CLAMPING

- > FAILOVER WITH BALL
- > FAILOVER WITH ROLL
- > SIDE THRUST PIECES WITH AND WITHOUT SEAL
- > SET SCREWS

PRODUCT OVERVIEW:

Type	Designation	Spring force [N]	Thread	No. of models	Design variants
6980MK	Failover with ball	52	M22 x 1,5	2	thread
6980FRX	Failover with roll	7 - 20	-	2	Block
6380	Side thrust pieces	10 - 300	-	29	Einstock
6940	Set screw, ball-shaped	-	M5 x M20	7	thread
7110	Set screw with ball	-	M8 - M20	20	thread

PRODUCT EXAMPLES:

NO. 6980MK AND 6980FRX

> Spring force: 7 - 52 N

NO. 6380

> Spring force: 10 - 300 N

NO. 6940 AND 7110DK

> Thread: M5 - M20

> New Catalog

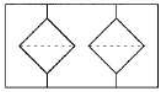
Changes in Catalog

> News Overview

> 6918F Filter platte for sequential valve

No. 6918F

Filter plate



NEW!

CAD

Order no.	Article no.	max. pressure range [bar]	Filteration [µm]	OR-1 O-ring Order No.	Weight [g]
562093	6918F-100	400	100	466334	65

Design:

Filter plate and filter sleeve made of aluminium, surfaces black anodised. Filter plates made of metal mesh.

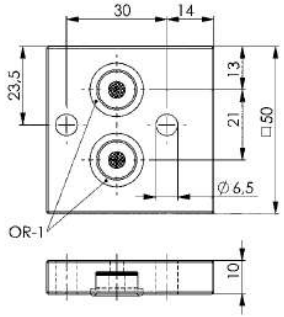
Application:

Used to protect the sequential valve 6918-3 and 6918-12 from contamination in clamping devices.

Note:

If a finer strainer is required, this can be easily replaced. The finer the filter selected, the greater the flow resistance.

Replacement filter:
Filter, plug-in design 25 µm, order no. 562203
Filter, plug-in design 40 µm, order no. 562204
Filter, plug-in design 100 µm, order no. 562205

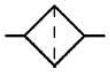


> 6981P Filter, cartridge design

No. 6981P-XX

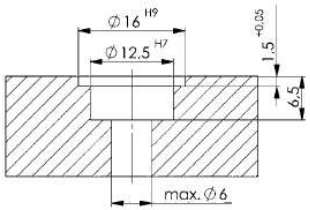
Filter, cartridge design

Q max. 20 l/min.



NEW!

Installation dimensions:



CAD

Order no.	Article no.	Filteration [µm]	max. operating pressure [bar]	OR-1 O-ring Order No.	Weight [g]
562203	6981P-25	25	250	466334	5,5
562204	6981P-40	40	250	466334	5,5
562205	6981P-100	100	400	466334	5,5

Design:

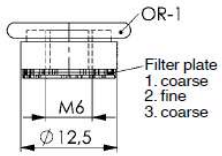
Filter sleeve made of aluminium, surfaces black anodised. Filter plates made of metal mesh.

Application:

For protecting actuators and valves in clamping devices against contamination in the hydraulic fluid.

Note:

Always mount the fine filter plate between the two coarse filter plates. Can also be built into fixtures.
Filter is pressed in and cannot be reused.
The finer the filter selected, the greater the flow resistance.

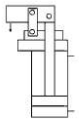


> 6958CK Vertical clamp MINI

No. 6958CK

Vertical clamp MINI

Double-acting,
max. operating pressure 250 bar,
min. operating pressure 35 bar.



NEW!

CAD

Order no.	Article no.	Clamping force F1 at 100 bar* [kN]	Clamping force F1 at 250 bar* [kN]	Piston force F5 at 100 bar [kN]	Piston force F5 at 250 bar [kN]	Vol. Sp [cm^3]	Vol. Lo [cm^3]	eff. piston area Sp [cm^2]	Md [Nm]	Q max. ** [l/min]	Weight [g]
562236	6958CK-16	1,36	3,4	2,54	6,36	2,75	1,53	2,545	5,8	0,5	333

Sp = clamping, Lo = unclamp
* Clamping task with clamping arm, standard
** Qmax. with clamping arm, standard

Page 148

No. 6958CK-XX-04

Clamping arm

CAD

NEW!

No. 6958CKR-XX-04

Clamping arm blank

CAD

NEW!

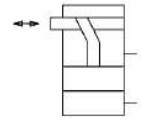
Page 150

> 6978CD Side clamping element without support

No. 6978CD

Side clamping element without support

Double-acting,
max. operating pressure 250 bar,
min. operating pressure 30 bar.



NEW!

Order no.	Article no.	Clamping force at 150 bar [kN]	Clamping force at 250 bar [kN]	Stroke	OR-1 O-ring Order No.	OR-2 O-ring Order No.	Weight [g]
562198	6978CD-28	16,5	27,5	3	562537	173096	1510

Design:

Housing made of steel, burnished. Tension slide hardened. Integrated flow rate restrictor, grooved clamping jaw. Oil supply via oil channel in fixture body.

Application:

For clamping workpieces in a linear direction. Compact design. The workpiece can be clamped sensitively thanks to the adjustable flow rate restrictor.

Features:

High flexibility through individually designed and exchangeable clamping jaws.

Note:

The installation hole must be free of burrs. Seals and housings must be greased during installation. Avoid chips from gathering via oil channels.

> 6978CD Side clamping element with support

No. 6978CDA

Side clamping element with support

Double-acting,
max. operating pressure 250 bar,
min. operating pressure 30 bar.

CAD

NEW!

Order no.	Article no.	Clamping force at 150 bar [kN]	Clamping force at 250 bar [kN]	Stroke	OR-1 O-ring Order No.	OR-2 O-ring Order No.	Weight [g]
562197	6978CDA-28	16,5	27,5	3	562537	562534	1250

Design:

Housing made of steel, burnished. Tension slide hardened. Alignment by cylinder pin. Integrated support control and grooved clamping jaw. Oil supply via oil channel in fixture body.

Application:

For clamping workpieces in a linear direction. Compact design thanks to integrated support and support control. A pneumatic support control is included as standard, which can be connected if required. The support height can be adjusted to the workpiece height by means of shims.

Features:

High flexibility through individually designed and exchangeable clamping jaws.

Note:

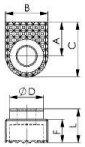
The installation hole must be free of burrs. Seals and housings must be greased during installation. Avoid chips from gathering via oil channels.

No. 6978CDA-28-06

Clamping jaws, serrated

NEW!

CAD



Order no.	Article no.	A	B	C	dia. D	F	L	Weight [g]
562201	6978CDA-28-06	8	10	13	8	5,5	8	4

Design:

Tempered steel, hardened and tempered, serrated clamping surface, with bolt.

Application:

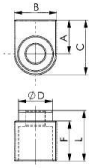
For all workpieces with normal clamping faces.

No. 6978CDAR-28-06

Clamping jaws blank, smooth

NEW!

CAD



Order no.	Article no.	A	B	C	dia. D	F	L	Weight [g]
562202	6978CDAR-28-06	8	10	13	8	9,5	12	6,5

Design:

Tempered steel, unhardened, with smooth clamping surface, with bolt.

Application:

These clamping jaws can be shaped into any clamping form or ground flush for sensitive workpieces.

Subject to technical alterations.

Clamping jaws are fitting to both side clamping elements!!

> 6984 -20 Support control, pneumatic

No. 6984-20

Support control, pneumatic

NEW!

CAD

Order no.	Article no.	Stroke max. [mm]	Input pressure [bar]	Md max. [Nm]	Spring force min. [N]	Spring force max. [N]	OR-1 O-ring Order No.	OR-2 O-ring Order No.	Weight [g]
562223	6984-20	6	1 - 12	5	4,3	20,7	559533	552174	26

Design:

Housing made of steel, hardened and honed. Piston hardened and ground. Compression spring from stainless steel. O-rings and springs supplied as standard.

Application:

The support control is used in fixtures where a signal indicating a correctly supported workpiece is required to enable machining. Lightweight workpieces should be clamped before being pressurised with compressed air. A precise air flow upstream of the pressure transducer is required for ensuring correct operation of the support control.

Features:

The support control works like a pneumatic back-pressure nozzle. The position is extended from its initial position by a pressure spring. Once applied, the air jet flows through the piston and the radial vent hole on the support control housing to outside. The discharge hole is sealed as soon as a workpiece is mounted and the piston is pushed downwards by min. 1.5 mm. A clamping stroke of 2-3 mm is recommended. The air flow backs up, the internal air pressure rises. The pressure value must be transferred to the control by an appropriate pressure signal converter. The system is relatively insensitive to fine chips.

> 6980FRX Failover with roll

No. 6980FRX

Failover with roll

flanged.

NEW!

CAD

Order no.	Article no.	Material roll steel	Material roll plastic	Deflection force [N]	Deflection angle max. [°]	Weight [g]
562208	6980FRS-16	●	-	7-20	24	258
562209	6980FRK-16	-	●	7-20	24	252

Design:

Housing and lever made of steel, burnished. Roller made of hardened steel or plastic

Application:

Workpieces are held in position before the clamping operation and prevented from falling out.

Features:

Countless variants are possible by combining the various mounting variants and deflection directions. Damage to the workpiece surface is prevented by using the roller.

Note:

The deflection can be changed by altering the position of the stop screw with the thrust piece in the housing. The position is secured with the clamping screw. In the normal position, the lever is changeable by 90°.

Replacement part:
Roller made of steel 6958FRS-16-06: order no. 562538
Roller made of plastic 6980FRK-16-06: order no. 562539

> 6980MK Failover with ball

No. 6980MK

Failover with ball

screwable.

NEW!

CAD

Order no.	Article no.	dia. A	~P Spring force [N]	Screwing depth H min. [mm]	Screwing depth H max. [mm]	L	Weight [g]
562206	6980MK-08	8	52	9	15	64	66
562207	6980MK-10	10	52	9	15	64	69

Design:

Housing made of steel, burnished. Plunger hardened.

Application:

Workpieces are held in position before the clamping operation and prevented from falling out.

Features:

Thanks to the cylindrical shape, the screw-in failover can be used 360°. Fine adjustment by screwing in or unscrewing the failover.

Note:

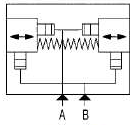
Plungers can be individually designed in length and ball diameter and are available on request. For installation, use hook spanner order no 54916.

> 6965-10 Compensating collet

No. 6965-10

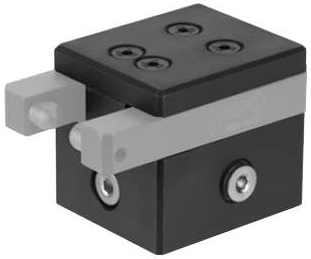
Compensating collet

Single-acting, with spring return,
max. operating pressure 250 bar,
min. operating pressure 30 bar.



NEW!

CAD



Order no.	Article no.	max. clamping force [kN]	max. locking force [kN]	max. piston force [kN]	Holding force [kN]	Clamping stroke [mm]	Compensating stroke [mm]	Workpiece clamping range [mm]	G	OR-1 O-ring Order No.	Weight [g]
562219	6965-10	2,5	5	2,8	0,34	7,5	3,75	2,5 - 8,5	G1/8	550265	1900

Design:

Housing made of steel, burnished. Complete with four fastening bolts and O-ring for flange seal. Oil supply via threaded connection or oil channel in the fixture body. Clamping lever standard is not supplied as standard.

Application:

The compensating collet is used in clamping devices to clamp or hold workpieces floating and distortion-free. Several compensating collets can be used without distorting the workpiece.

Features:

The clamp arms mounted axially above the pivot point each have a counterbalance stroke. This allows workpieces with large deviations in shape and position to be clamped on the clamping surface in the stroke direction. The workpieces are supplied by application of pressure first at connection A „clamping“, by placing the clamping lever onto the workpiece and then to clamp the clamping lever distortion-free in position by means of connection B „clamping“. The clamping sequence can also be implemented by means of a sequence valve 6918-80-10 or sequence valve 6918-XX. The clamping levers are changeable.

> 6965-10-XX Compensating collet, accessories

No. 6965-10-00

Clamping lever, standard

NEW!

CAD

No. 6965-10-03

Clamping lever, cranked

NEW!

CAD

No. 6965-10-09

Clamping lever blank

NEW!

CAD

Important: Compensating collet is delivered without clamping lever.
It‘s not allowed to use it without!!. A warning sign is fixed!!

> 6983G Pressure gauge, with housing

No. 6983G

Pressure gauge, with housing

Threaded design.

NEW!

CAD

Order no.	Article no.	max. pressure range [bar]	Md [Nm]	Md 1 [Nm]	OR-1 O-ring Order No.	Weight [g]
562211	6983G-10-160	160	100	15	562534	635
562212	6983G-10-400	400	100	15	562534	635

Design:

Steel housing burnished for screwing in, splash-proof by means of chip-resistant glass pane, with water drain notches.

Application:

For quick, direct reading of hydraulic pressures in fixtures. Pressure gauge is protected by a chip-resistant glass pane. The structural shape prevents any accumulation of chips.

Note:

For screwing into the fixture with O-ring connection. Anti-rotation device by means of two pins.

No. 6983B

Pressure gauge, with housing

Block design.

NEW!

CAD

Order no.	Article no.	max. pressure range [bar]	Md 1 [Nm]	OR-1 O-ring Order No.	Screw (2 pieces)	Weight [g]
562213	6983B-10-160	160	15	321646	M8 x 75	1887
562214	6983B-10-400	400	15	321646	M8 x 75	1887

Design:

Steel housing, burnished, splash-proof by means of chip-resistant glass pane. Supplied as standard with O-ring, oil plugs and fastening bolts. Oil supply via threaded connection or oil channel in the fixture body.

Application:

For quick, direct reading of hydraulic pressures in fixtures. Pressure gauge is protected by a chip-resistant glass pane.

Note:

The bottom oil channel is plugged by a sealing washer and an M4 x 6 bolt.

> 908S-30-XXX Vent screw

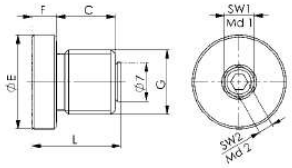
No. 908S-30-XXX

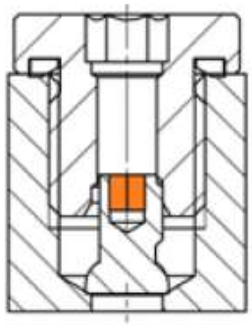
Vent screw

Max. operating pressure 400 bar.

CAD

NEW!





Order no.	Article no.	C	dia. E	F	G	L	SW1	SW2	Md 1 [Nm]	Md 2 [Nm]	Weight [g]
563491	908S-30-G1/8	9	14,5	4	G1/8	14	6	3	20 - 22	5 - 7	8
563492	908S-30-G1/4	12	19,0	5	G1/4	18	6	3	28	5 - 7	18

Design:

Housing, socket bolt and sealing element made of stainless steel, seal made of FKM.

Application:

Vent screw for venting clamping devices and clamping elements. Compact and simple design or handling. Insensitive to external influences. Suitable for temperatures up to 150 °C. It is sufficient to open the vent screw by half a turn.

Note:

Only an Allen key **SW3** is required for bleeding. The inner vent screw is opened anticlockwise. Therefore, there is no risk of loosening the outer screw when closing. Observe torque specifications.

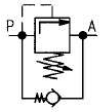
> 6918-XX-XXX Sequence valve, threaded design

No. 6918-XX-XXX

CAD

Sequence valve, threaded design

Max. operating pressure 350 bar.



NEW!

Order no.	Article no.	Setting pressure set at factory [bar]	Setting range at A [bar]	L max.	B	C	dia. E	F	G	SW	SW1	SW2	Md max. [Nm]	Md 1 max. [Nm]	Q max. [l/min]	Weight [g]
562224	6918-30-50	50	20 - 60	28,0	15,16	20,3	17,5	5,6	G1/8	16	14	4	16	7	3,8	37
562225	6918-30-100	100	35 - 150	28,0	15,16	20,3	17,5	5,6	G1/8	16	14	4	16	7	3,8	37
562226	6918-30-200	200	125 - 275	31,7	15,16	24,0	17,5	5,6	G1/8	16	14	4	16	7	3,8	45
562227	6918-40-50	50	20 - 55	34,5	18,72	27,4	21,0	5,0	G1/4	19	17	4	27	7	3,8	68
562228	6918-40-100	100	35 - 150	34,5	18,72	27,4	21,0	5,0	G1/4	19	17	4	27	7	3,8	72
562229	6918-40-200	200	125 - 275	31,8	18,72	24,6	21,0	5,0	G1/4	19	17	4	27	7	3,8	72

Design:

Housing from steel, hardened and burnished.

Application:

The sequence valve is used in cases where another consumer is connected to the circuit after a set pressure has been reached. The sequence valve ensures a controlled clamping sequence. Once a defined pressure is reached, another hydraulic circuit is opened.

Note:

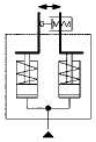
The sequence valve can be screwed directly into the threaded connection for the swing clamp top flange and base flange types 6951KP, 6951FP, 6941KP and link clamp 6942KK. The oil must be supplied via the O-ring connection. The sequence valve can be screwed directly into fixtures as well.

> 6966 Clamping tongs, single acting

No. 6966

Clamping tongs

Single-acting,
max. operating pressure 250 bar,
min. operating pressure 30 bar.



NEW!

CAD

Order no.	Article no.	Holding force at 250 bar [kN]	Piston force at 250 bar [kN]	Stroke H min. [mm]	Stroke H max. [mm]	Clamping range S [mm]	Md [Nm]	OR-1 O-ring Order No.	Weight [g]
562215	6966-01	0,78	1,25	1,8	14	2 - 10	10	466334	1423

Design:

Housing made of steel, burnished. Steel clamping lever, case-hardened. The clamping levers are driven by two single-acting threaded cylinders. Oil supply via oil channel in fixture body. Supplied as standard with oil feed brake and four fastening bolts M6 x 70. A filter insert with an O-ring is integrated in the supply.

Application:

The clamping tongs prevent vibrations on the workpiece during machining. The clamping tongs are suitable for holding the workpieces but not for positioning them,

Features:

The clamping tongs hold the workpiece without clamping it. A wide range of clamping forms can be implemented with the clamping lever blank.

Note:

Resetting of the clamping levers by the oil feed brake. Resetting is also possible via a spring, which is not supplied as standard.

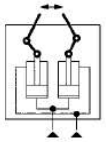
> 6966 Clamping tongs, double acting

No. 6966D

Clamping tongs

Double-acting,
max. operating pressure 250 bar,
min. operating pressure 30 bar.

CAD



NEW!

Order no.	Article no.	Holding force F at 250 bar * [kN]	Piston force at 250 bar [kN]	Clamping range up to [mm]	OR-1 O-ring Order No.	Md [Nm]	Weight [g]
562217	6966D-07	6,7	7,8	10	298778	25	3350

* Holding force specification for lever length 0

Design:

Housing made of steel, burnished. Clamp lever holder made of case-hardened steel. The clamping lever holder is driven by two piston rods installed in the housing. Oil supply via oil channels in fixture body. Supplied as standard with four fastening bolts M8 x 80 and two Viton moulded seals for the fastening bolt holder.

Application:

The clamping tongs prevent vibrations on the workpiece during machining. The clamping tongs are suitable for compensating and holding the workpieces but not for positioning them, with a repetition accuracy of 0.02 to 0.03 mm.

Features:

The clamping tongs hold the workpiece without clamping it.

Note:

The clamping levers can be designed individually, these are not supplied as standard.

> 6966XX Clamping lever blank

No. 6966R

Clamping lever blank

NEW!

CAD

Order no.	Article no.	Span H max. [mm]	A	B	C	E	Weight [g]
562216	6966R-01-00	8	61	24	15	52	559

Design:

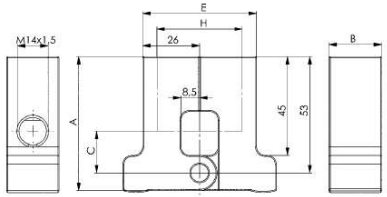
Case-hardened steel, burnished.

Application:

For clamping tongs 6966-01. The clamping lever blank can be adjusted according to the shape of the workpiece.

Note:

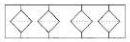
The span H can be increased as required, but it must be noted that shear forces of more than 8 mm can occur!



The new replacementfilter 562203, 562204,562205 will fit to this filter plate

No. 6966DF

Filter plate



NEW!

CAD

Order no.	Article no.	max. pressure range [bar]	Filteration [µm]	OR-1 O-ring Order No.	Weight [g]
562218	6966DF-07-100	250	100	466334	320

Design:

Filter plate and filter sleeve made of aluminium, black anodised.
Filter plates made of metal mesh.

Application:

Used to protect the 6966D-07 clamp from contamination in clamping devices

Note:

If a finer strainer is required, this can be easily replaced.
The finer the filter selected, the greater the flow resistance.

> New Catalog

Questions?

> **HOME** OF **CLAMPING**

> Thank you

Danke für Ihre Aufmerksamkeit.

Tack. Merci beaucoup. Thank you. ¡muchas gracias!

Grazie. Dziękujemy. Спасибо. Tak. Bedankt.

For further questions please contact us...