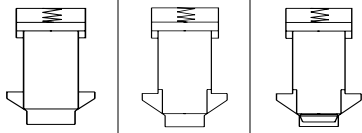
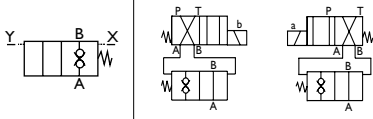


## Active Cartridge Valves – 2/2 Way Series NG16–NG100



Designation	Symbol	Page
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Features and Types of Cones and Sleeves		5
Specifications and Characteristic Parameters		6
Performance Data		7-9
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# General Description

Moog's Active Cartridge valve was designed to eliminate many of the limitations of Standard Cartridge Valves. The Active Cartridge contains an additional control area that provides more robust control of switching pressure for high speed and response machines where low system pressure can delay closing times. In essence, Active Cartridges have a double acting pilot piston for 4-way directional control of the cone or poppet, whereas a Standard Cartridge uses a single acting piston for 3-way control.

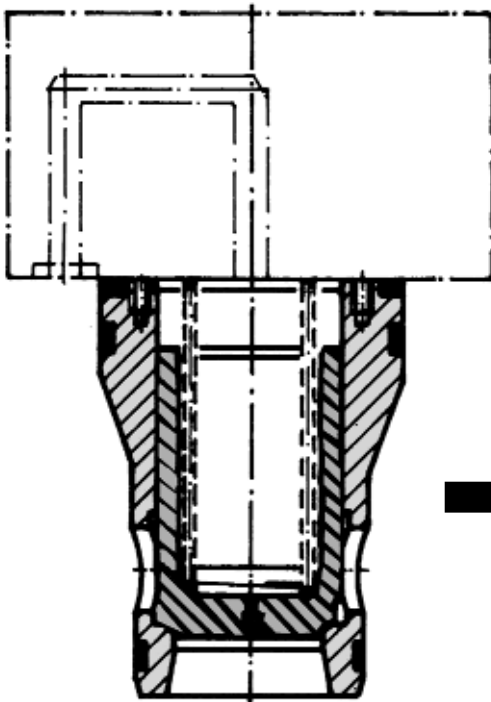
As a result, the Active Cartridge can offer improvements in:

- Closing time
- Opening time
- Closing under load

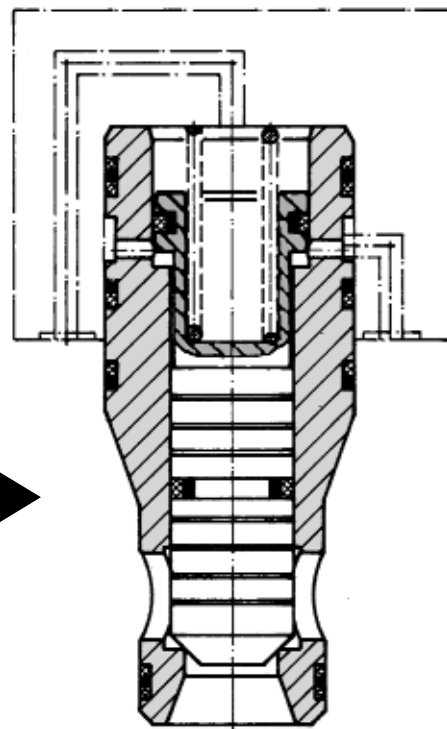
An Active Cartridge may be used for the following functions:

- Hydraulically pilot operated check or direction control
- Solenoid pilot operated check or direction control

**Standard Cartridge**



**Active Cartridge**



- All pilot and poppet seals create tight fit at all ports to prevent leakage in either direction
- Can operate without a spring when a defined spool position is not required and hydraulic system pressure is lost
- Cartridge can be closed by a considerably lower control pressure at X due to the larger control surface area  $A_X$  (compared to the surface area  $A_A$ )
- Opening function and velocity of the cartridge are independent of the pressure in the working ports A and B
- Ability to be equipped with X-, S-, T-, and special cones
- Sizes NG16 to NG100 per DIN 24342

## Types of Cones and Sleeves

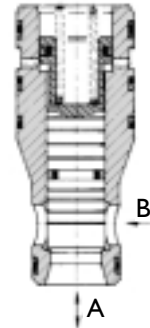
### Sleeve A, Cone X:

An active-cartridge with sleeve-A and cone-X (differential area  $A_B = 0$ ) can be used for all directional and check functions where a larger flow area and lower pressure losses are desired.

Due to the lower throttle function ( $A_B = 0$ ) the switching operations are not as soft as when using cones with a differential area  $A_B > 0$  (Cones S and T).

With non-active control, the flow of this cartridge can only be from A to B.

Sleeve A, Cone X

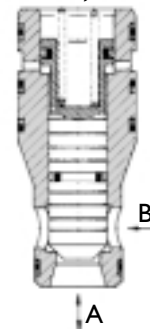


### Sleeve B, Cone S:

Used in all directional, check, and flow control functions.

Due to the cone differential area  $A_B > 0$ , the flow direction can be chosen also with non-active control.

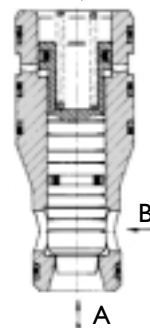
Sleeve B, Cone S



### Sleeve B, Cone T:

Cone T, with a dampening nose, can be used to avoid additional pressure peaks in tank circuits or to obtain a better adjustment of flow control valves.

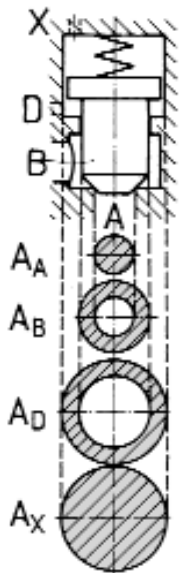
Sleeve B, Cone T



# Specifications

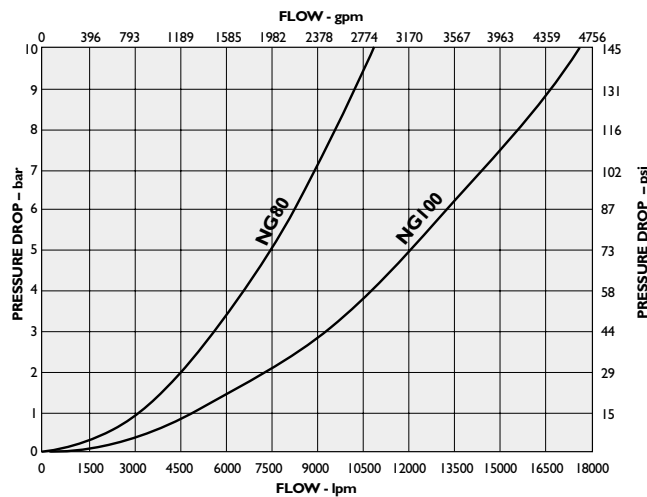
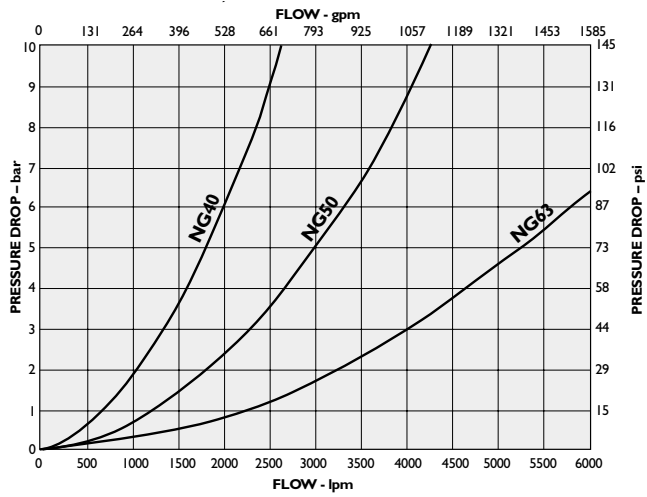
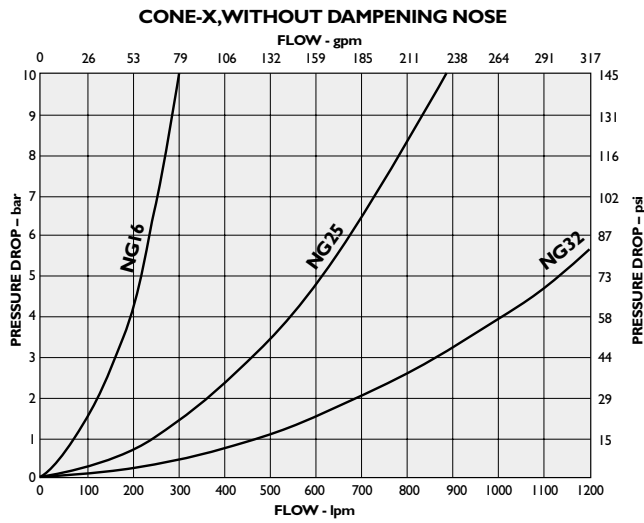
General Data	Value	Unit	Specifications
Designation and Symbol	—	—	2-way Seat Valve (Cartridge)
Mode of Construction	—	—	Pilot Operated Seat Valve
Manner of Mounting	—	—	Manifold Cartridge Mounting
Branch Circuit Connection	—	—	Drilling in the Manifold
Mounting Dimensions	—	—	See Mounting Dimensions Page 17
Mounting Position	—	—	Any
Flow Direction	—	—	See Cone Types Page 5
Ambient Temperature Range	min.	°F (°C)	-13° (-25°)
	max.	°F (°C)	+140° (+60°)
<b>Working Pressure</b>			
Inlet	min.	psi (bar)	0 (0)
	max.	psi (bar)	5075 (350)
Outlet	min.	psi (bar)	0 (0)
	max.	psi (bar)	5075 (350)
Temperature Range	min.	°F (°C)	-13° (-25°)
	max.	°F (°C)	+176° (+80°)
Viscosity Range	min.	mm <sup>2</sup> ·s <sup>-1</sup> [cSt]	2.8
	max.	mm <sup>2</sup> ·s <sup>-1</sup> [cSt]	380
Operational Viscosity	Vn	mm <sup>2</sup> ·s <sup>-1</sup> [cSt]	35
Nominal Bore Size	—	mm	<b>NG16 NG25 NG32 NG40 NG50 NG60 NG80 NG100</b>
Pilot Volume (S & T Cones)	—	cu. in (cc)	.12 (2.00) .50 (8.00) 1.04 (17.00) 1.77 (29.00) 4.70 (77.00) 11.66 (191.00) 17.40 (285.00) 30.14 (494.00)
	—	cu. in (cc)	.13 (2.03) .47 (7.70) 1.05 (17.10) 1.99 (32.61) 4.71 (77.00) 11.6 (190.50) 17.43 (286.00) 30.11 (492.50)
Pilot Volume (X Cone)	—	cu. in (cc)	.13 (2.03) .47 (7.70) 1.05 (17.10) 1.99 (32.61) 4.71 (77.00) 11.6 (190.50) 17.43 (286.00) 30.11 (492.50)

# Characteristic Parameters



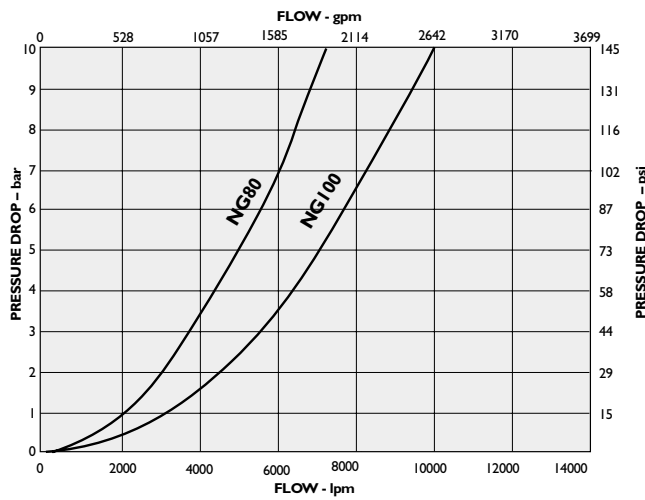
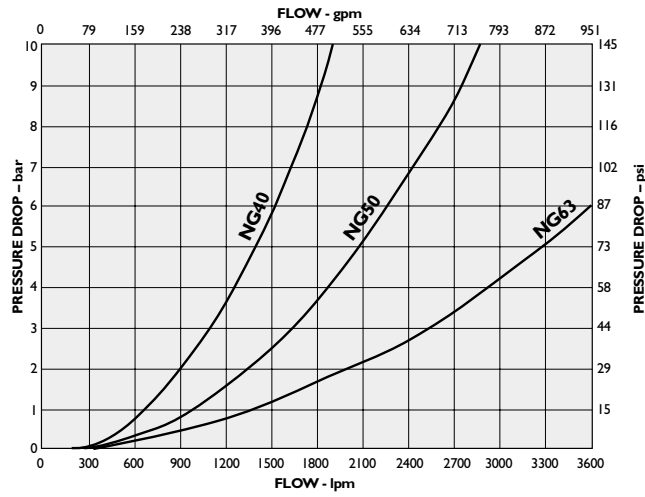
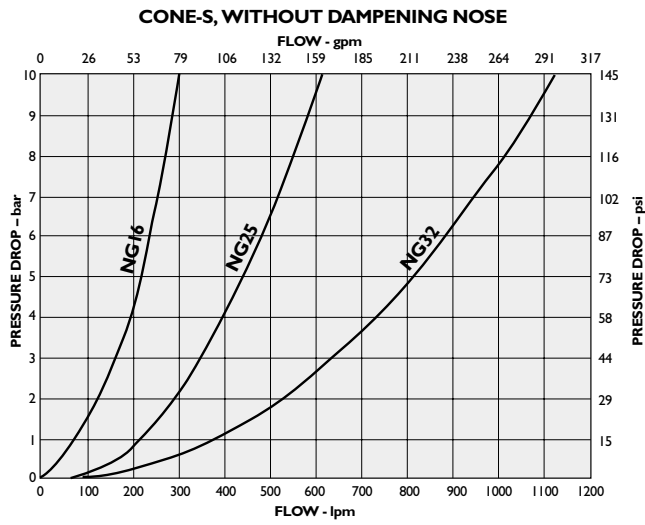
Reference Surface A <sub>A</sub>									
	NG16	NG25	NG32	NG40	NG50	NG63	NG80	NG100	
<b>Cones S and T</b>									
Stroke in (mm)	0.26 (6.5)	0.49 (12.5)	0.59 (15.0)	0.59 (15.0)	0.79 (20)	1.18 (30.0)	1.18 (30.0)	1.40 (35.5)	
A <sub>A</sub> in <sup>2</sup> (mm <sup>2</sup> )	.19 (123)	.35 (227)	.70 (452)	1.25 (804)	2.46 (1590)	4.10 (2642)	5.96 (3848)	8.80 (5675)	
A <sub>A</sub> (Ref)									
A <sub>B</sub>	0.64	0.67	0.56	0.41	0.49	0.46	0.47	0.68	
A <sub>D</sub>	0.92	1.04	0.95	1.03	0.93	0.95	1.00	0.77	
A <sub>X</sub>	2.56	2.71	2.51	2.44	2.42	2.41	2.47	2.45	
<b>Cone X</b>									
Stroke in (mm)	0.26 (6.5)	0.49 (12.5)	.59 (15.0)	.59 (15.0)	.79 (20.0)	1.18 (30.0)	1.18 (30.0)	1.40 (35.5)	
A <sub>A</sub> in <sup>2</sup> (mm <sup>2</sup> )	.31 (201)	.59 (380)	1.10 (707)	1.95 (1257)	3.68 (2376)	5.96 (3848)	8.79 (5674)	14.73 (9503)	
A <sub>A</sub> (Ref)									
A <sub>B</sub>	—	—	—	—	—	—	—	—	
A <sub>D</sub>	.56	0.62	0.61	0.73	0.62	0.65	0.68	0.46	
A <sub>X</sub>	1.56	1.62	1.61	1.73	1.62	1.65	1.68	1.46	

## Direction and Check Functions

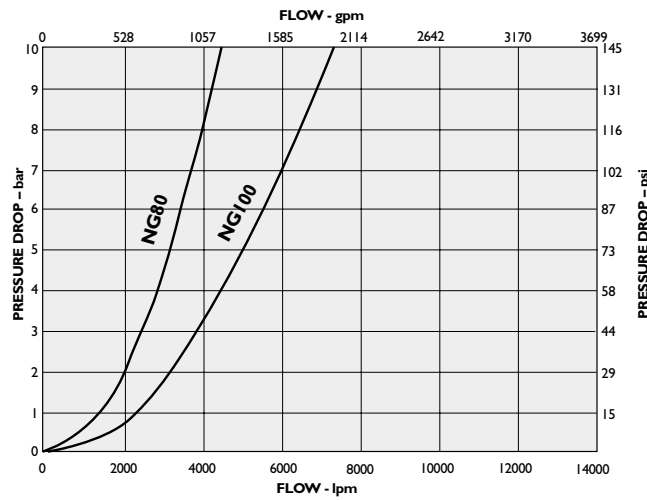
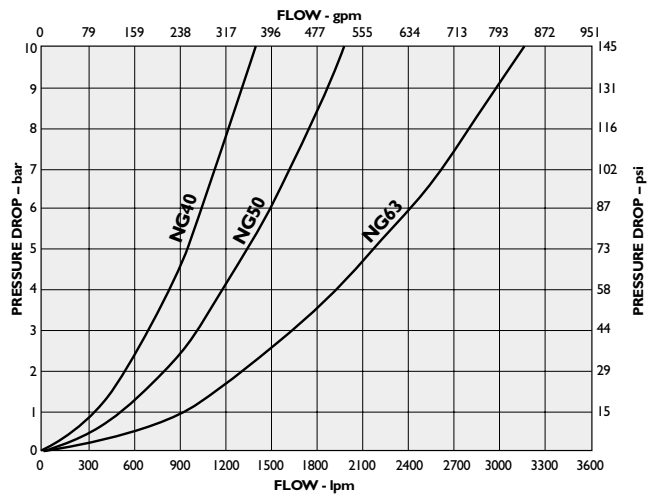
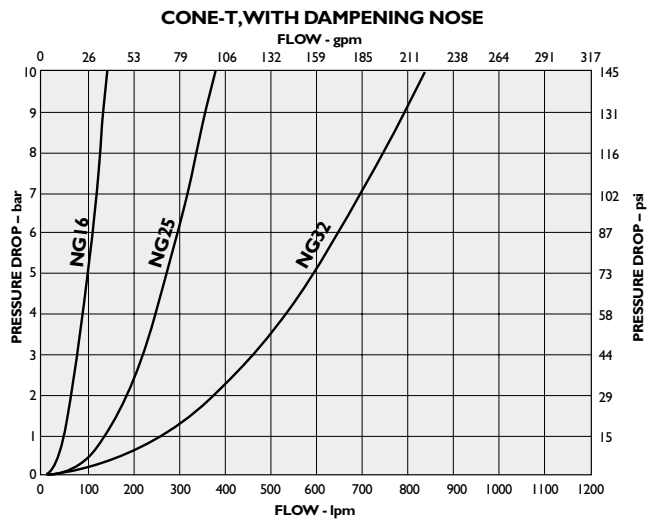


# Performance Data

## Direction; Check and Flow Control Functions



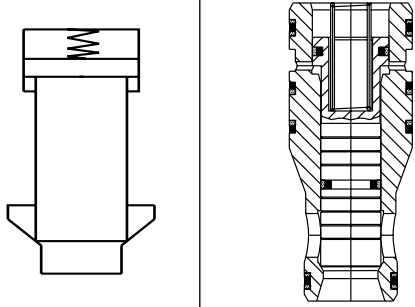
## Direction; Check and Flow Control Functions



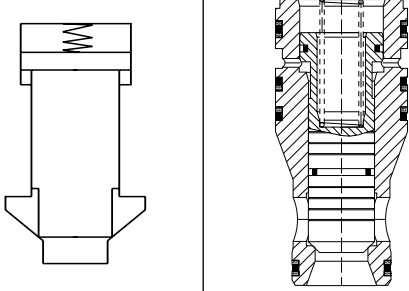


# Standard Models

## X-Cone for Direction Control and Check Functions (without dampening nose)

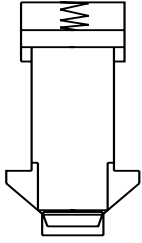
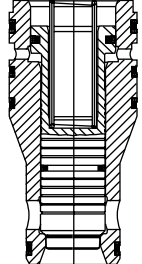
Symbol	Function	Size NG [mm]	Weight lb (kg)	Spring Rating psi (bar)	Part Designation	Part Number
		16	0.88 (0.4)	14.5 (1.0)	M-CHE16A6XS	XCBI0866-000-00
				29.0 (2.0)	M-CHE16A6XT	XCBI0867-000-00
				58.0 (4.0)	M-CHE16A6XU	XCBI0868-000-00
				87.0 (6.0)	M-CHE16A6XV	XCBI0869-000-00
		25	1.76 (0.8)	14.5 (1.0)	M-CHE25A6XS	XCBI0878-000-00
				29.0 (2.0)	M-CHE25A6XT	XCBI0879-000-00
				58.0 (4.0)	M-CHE25A6XU	XCBI0880-000-00
				87.0 (6.0)	M-CHE25A6XV	XCBI0881-000-00
		32	3.3 (1.5)	14.5 (1.0)	M-CHE32A6XS	XCBI0886-000-00
				29.0 (2.0)	M-CHE32A6XT	XCBI0887-000-00
				58.0 (4.0)	M-CHE32A6XU	XCBI0888-000-00
		40	7.04 (3.2)	14.5 (1.0)	M-CHE40A6XS	XCBI1104-000-00
				29.0 (2.0)	M-CHE40A6XT	XCBI1105-000-00
				58.0 (4.0)	M-CHE40A6XU	XCBI1106-000-00
		50	12.1 (5.5)	14.5 (1.0)	M-CHE50A6XS	XCBI0901-000-00
				29.0 (2.0)	M-CHE50A6XT	XCBI0902-000-00
				58.0 (4.0)	M-CHE50A6XU	XCBI0903-000-00
		63	24.6 (11.2)	14.5 (1.0)	M-CHE63A6XS	XCBI0910-000-00
				29.0 (2.0)	M-CHE63A6XT	XCBI0911-000-00
				58.0 (4.0)	M-CHE63A6XU	XCBI0912-000-00
		80	53.0 (24.1)	14.5 (1.0)	M-CHE80A6XS	XCBI1160-000-00
				29.0 (2.0)	M-CHE80A6XT	XCBI1161-000-00
				58.0 (4.0)	M-CHE80A6XU	XCBI1162-000-00
		100	86.2 (39.2)	14.5 (1.0)	M-CHE100A6XS	XCBI0923-000-00
				29.0 (2.0)	M-CHE100A6XT	XCBI0924-000-00
				58.0 (4.0)	M-CHE100A6XU	XCBI1026-000-00

## S-Cone for Direction; Check and Flow Control Functions (without dampening nose)

Symbol	Function	Size NG [mm]	Weight lb (kg)	Spring Rating psi (bar)	Part Designation	Part Number
		16	0.88 (0.4)	14.5 (1.0)	M-CHE16A6SS	XEB10870-000-00
				29.0 (2.0)	M-CHE16A6ST	XEB10871-000-00
				58.0 (4.0)	M-CHE16A6SU	XEB10872-000-00
				87.0 (6.0)	M-CHE16A6SV	XEB10873-000-00
		25	1.76 (0.8)	14.5 (1.0)	M-CHE25A6SS	XCB10001-000-00
				29.0 (2.0)	M-CHE25A6ST	XCB10002-000-00
				58.0 (4.0)	M-CHE25A6SU	XCB10003-000-00
				87.0 (6.0)	M-CHE25A6SV	XCB10004-000-00
		32	3.3 (1.5)	14.5 (1.0)	M-CHE32A6SS	XCB10889-000-00
				29.0 (2.0)	M-CHE32A6ST	XCB10890-000-00
				58.0 (4.0)	M-CHE32A6SU	XCB10891-000-00
		40	7.04 (3.2)	14.5 (1.0)	M-CHE40A6SS	XCB10895-000-00
				29.0 (2.0)	M-CHE40A6ST	XCB10896-000-00
				58.0 (4.0)	M-CHE40A6SU	XCB10897-000-00
		50	12.1 (5.5)	14.5 (1.0)	M-CHE50A6SS	XCB10904-000-00
				29.0 (2.0)	M-CHE50A6ST	XCB10905-000-00
				58.0 (4.0)	M-CHE50A6SU	XCB10906-000-00
		63	24.6 (11.2)	14.5 (1.0)	M-CHE63A6SS	XCB10913-000-00
				29.0 (2.0)	M-CHE63A6ST	XCB10914-000-00
				58.0 (4.0)	M-CHE63A6SU	XCB10915-000-00
		80	53.0 (24.1)	14.5 (1.0)	M-CHE80A6SS	XCB10919-000-00
				29.0 (2.0)	M-CHE80A6ST	XCB10920-000-00
				58.0 (4.0)	M-CHE80A6SU	XCB11078-000-00
		100	86.2 (39.2)	14.5 (1.0)	M-CHE100A6SS	XCB10925-000-00
29.0 (2.0)	M-CHE100A6ST			XCB10926-000-00		
58.0 (4.0)	M-CHE100A6SU			XCB11027-000-00		

# Standard Models

## T-Cone for Direction; Check and Flow Control Functions (with dampening nose)

Symbol	Function	Size NG [mm]	Weight lb (kg)	Spring Rating psi (bar)	Part Designation	Part Number
 		16	0.88 (0.4)	14.5 (1.0)	M-CHE16A6TS	XCBI0874-000-00
				29.0 (2.0)	M-CHE16A6TT	XCBI0875-000-00
				58.0 (4.0)	M-CHE16A6TU	XCBI0876-000-00
				87.0 (6.0)	M-CHE16A6TV	XCBI0877-000-00
		25	1.76 (0.8)	14.5 (1.0)	M-CHE25A6TS	XCBI0882-000-00
				29.0 (2.0)	M-CHE25A6TT	XCBI0883-000-00
				58.0 (4.0)	M-CHE25A6TU	XCBI0884-000-00
				87.0 (6.0)	M-CHE25A6TV	XCBI0885-000-00
		32	3.3 (1.5)	14.5 (1.0)	M-CHE32A6TS	XCBI0892-000-00
				29.0 (2.0)	M-CHE32A6TT	XCBI0893-000-00
				58.0 (4.0)	M-CHE32A6TU	XCBI0894-000-00
		40	7.04 (3.2)	14.5 (1.0)	M-CHE40A6TS	XCBI0898-000-00
				29.0 (2.0)	M-CHE40A6TT	XCBI0899-000-00
				58.0 (4.0)	M-CHE40A6TU	XCBI0900-000-00
		50	12.1 (5.5)	14.5 (1.0)	M-CHE50A6TS	XCBI0907-000-00
				29.0 (2.0)	M-CHE50A6TT	XCBI0908-000-00
				58.0 (4.0)	M-CHE50A6TU	XCBI0909-000-00
		63	24.6 (11.2)	14.5 (1.0)	M-CHE63A6TS	XCBI0916-000-00
				29.0 (2.0)	M-CHE63A6TT	XCBI0917-000-00
				58.0 (4.0)	M-CHE63A6TU	XCBI0918-000-00
		80	53.0 (24.1)	14.5 (1.0)	M-CHE80A6TS	XCBI0921-000-00
				29.0 (2.0)	M-CHE80A6TT	XCBI0922-000-00
				58.0 (4.0)	M-CHE80A6TU	XCBI1079-000-00
		100	86.2 (39.2)	14.5 (1.0)	M-CHE100A6TS	XCBI1404-000-00
29.0 (2.0)	M-CHE100A6TT			XCBI1405-000-00		
58.0 (4.0)	M-CHE100A6TU			XCBI1406-000-00		

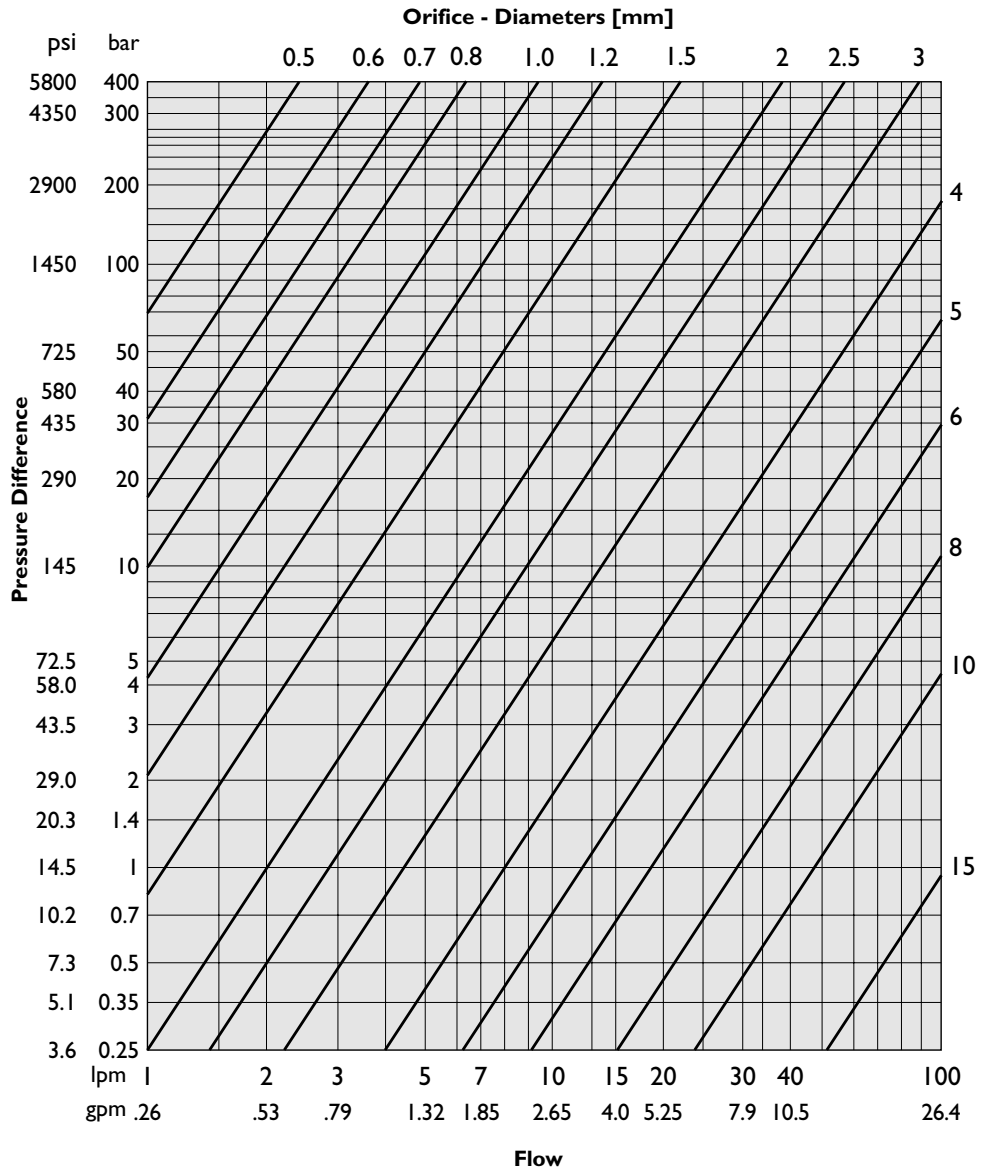
## DIN Covers

Symbol	Function	Size NG [mm]	Weight lb (kg)	Part Designation	Part Number
	Normally Open or Normally Closed	16	8.8 (4.0)	CCE16A6RH1X06	XEB14151-000-01
		25	13.2 (6.0)	CCE25A6RH1X06	XEB13343-000-01
		32	17.6 (8.0)	CCE32A6RH1X06	XEB12705-000-01
		40	28.6 (13.0)	CCE40A6RH1X06	XEB13558-000-01
		50	46.2 (21.0)	CCE50A6RH1X10	XEB12603-000-01
		63	85.8 (39.0)	CCE63A6RH1X10	XEB13861-000-01
		80	125.4 (57.0)	CCE80A6RH1X10	XEB13959-000-01
	Externally Piloted	16	4.4 (2.0)	CCE16A6RH3X	XEB14065-000-01
		25	8.8 (4.0)	CCE25A6RH3X	XEB14150-000-01
		32	13.2 (6.0)	CCE32A6RH3X	XEB13410-000-01
		40	22.0 (10.0)	CCE40A6RH3X	XEB13287-000-01
		50	39.6 (18.0)	CCE50A6RH3X	XEB12923-000-01
		63	79.2 (36.0)	CCE63A6RH3X	XEB14463-000-01
		80	125.4 (57.0)	CCE80A6RH3X	XEB13462-000-01
100	132.0 (60.0)	CCE100A6RH3X	XEB14040-000-01		

# Typical Orifice Characteristics

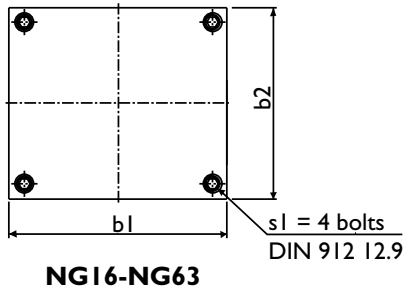
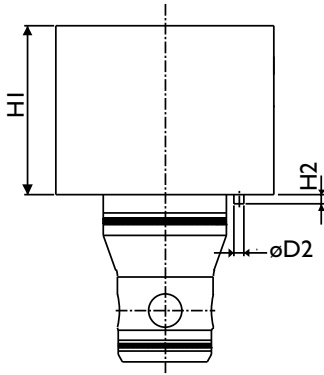
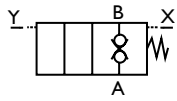
The function and switching velocity of a cartridge-valve can be influenced by changes in the metering-in and metering-out flow through the pilot lines. This is achieved by changing mounting orifices as required.

The following diagram should be used for selecting the correct orifice diameter.

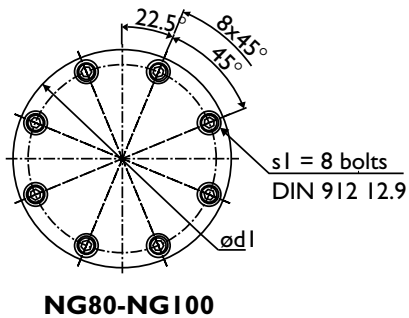


Viscosity : 35 mm<sup>2</sup> · s<sup>-1</sup> [cSt]  
 Oil temperature : 122°F / 50°C

## Hydraulically Operated Valves



Dimensions in (mm)		NG16	NG25	NG32	NG40	NG50	NG63
H1		2.56 (65)	2.56 (65)	3.15 (80)	3.15 (80)	4.72 (120)	5.51 (140)
H2		.20 (5)	.20 (5)	.20 (5)	.20 (5)	.24 (6)	.24 (6)
D2		.20 (5)	.20 (5)	.20 (5)	.20 (5)	.24 (6)	.24 (6)
b1		2.56 (65)	3.35 (85)	4.02 (102)	4.92 (125)	5.51 (140)	7.09 (180)
b2		2.56 (65)	3.35 (85)	4.02 (102)	4.92 (125)	5.51 (140)	7.09 (180)
s1	UNC	$5/16" \times 2 3/4"$	$1/2" \times 2 3/4"$	$5/8" \times 3 1/4"$	$3/4" \times 3 1/2"$	$3/4" \times 5.0"$	$1 1/4" \times 6.0"$
	Metric	M8X70	M12X65	M16X80	M20X90	M20X120	M30X150
Tightening Torque	ft-lb	23	75	225	413	413	1350
	N-m	30	100	300	550	550	1800

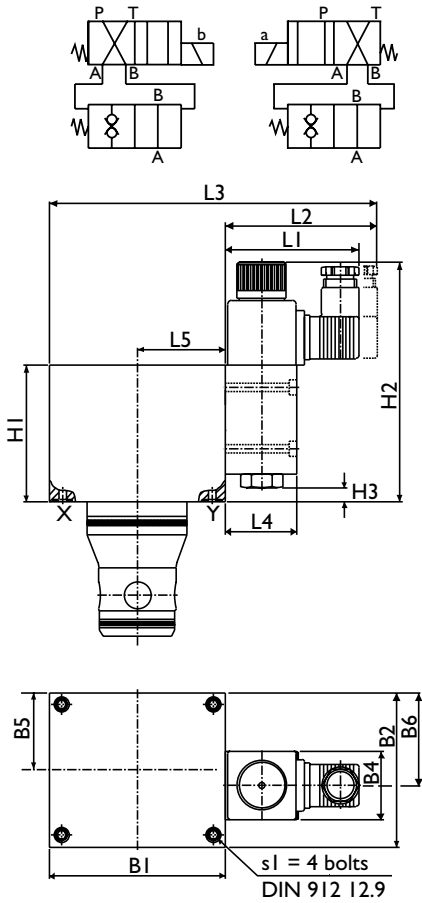


Dimensions in (mm)		NG80	NG100
d1		9.84 (250)	11.81 (300)
H1		5.91 (150)	6.30 (160)
H2		.24 (6)	.24 (6)
D2		.31 (8)	.31 (8)
s1	UNC	$1" \times 6 1/2"$	$1 1/4" \times 6 1/2"$
	Metric	M24X160	M30X160
Tightening Torque	ft-lb	675	1350
	N-m	900	1800

Note: Fastening screws are not part of the delivery.

# Dimensions

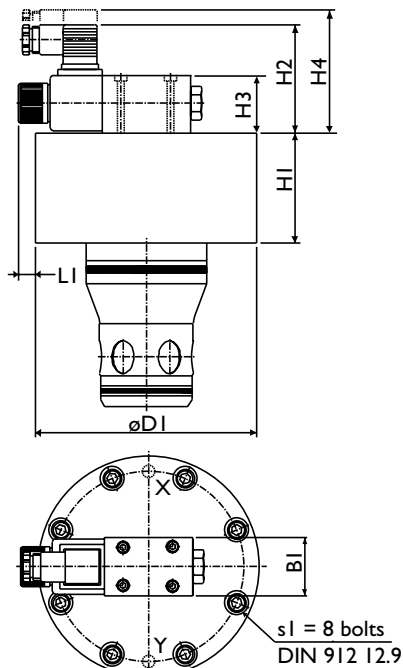
## Solenoid Operated Valves



### NG16-NG63

Dimensions in (mm)	NG16	NG25	NG32	NG40	NG50	NG63	
H1	3.54 (90)	3.54 (90)	3.54 (90)	3.54 (90)	4.72 (120)	5.51 (140)	
H2	6.54 (166)	6.54 (166)	6.54 (166)	6.54 (166)	8.98 (228)	8.98 (228)	
H3	.31 (8)	.31 (8)	.31 (8)	.31 (8)	.20 (5)	.20 (5)	
L1	3.66 (93)	3.66 (93)	3.66 (93)	3.66 (93)	4.72 (120)	4.72 (120)	
L2	4.13 (105)	4.13 (105)	4.13 (105)	4.13 (105)	5.20 (132)	5.20 (132)	
L3	7.48 (190)	8.07 (205)	8.70 (221)	9.88 (251)	11.49 (292)	13.23 (336)	
L4	1.81 (46)	1.81 (46)	1.81 (46)	1.81 (46)	3.78 (96)	3.78 (96)	
L5	1.67 (42.5)	1.97 (50)	2.29 (58)	2.87 (73)	3.15 (80)	3.94 (100)	
la*	y	y	y	y	y	y	
B1	3.35 (85)	3.94 (100)	4.57 (116)	5.75 (146)	6.30 (160)	7.87 (200)	
B2	2.56 (65)	3.35 (85)	4.02 (102)	4.92 (125)	5.51 (140)	7.09 (180)	
B4	1.81 (46)	1.81 (46)	1.81 (46)	1.81 (46)	2.76 (70)	2.76 (70)	
B5	1.28 (32.5)	1.67 (42.5)	2.03 (51.5)	2.46 (62.5)	2.76 (70)	3.54 (90)	
B6	1.28 (32.5)	1.67 (42.5)	2.41 (61.3)	2.46 (62.5)	2.82 (71.6)	3.54 (90)	
s1	UNC	$\frac{5}{16}'' \times 3\frac{1}{2}''$	$\frac{1}{2}'' \times 3\frac{3}{4}''$	$\frac{5}{8}'' \times 3\frac{3}{4}''$	$\frac{3}{4}'' \times 4''$	$\frac{3}{4}'' \times 4\frac{3}{4}''$	$1\frac{1}{4}'' \times 6.0''$
	Metric	M8X90	M12X100	M16X90	M20X100	M20X120	M30X150
Tightening Torque	ft-lb	23	75	225	413	413	1350
	N-m	30	100	300	550	550	1800

\*la = Mounted side of pilot valve

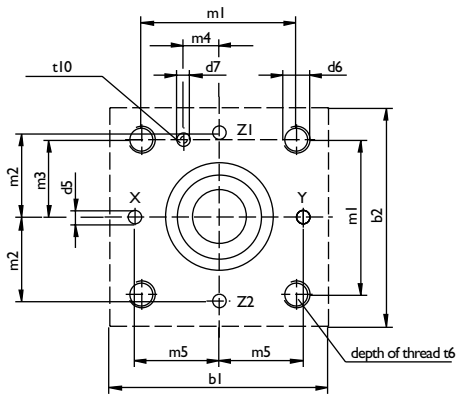
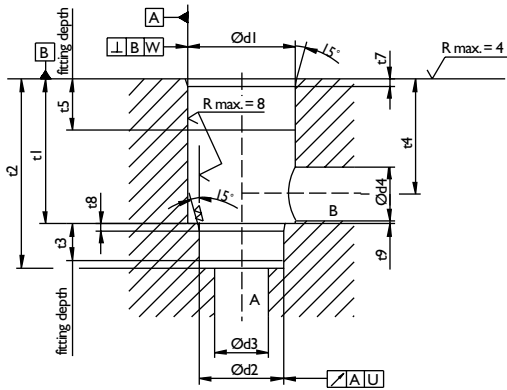


### NG80-NG100

Dimensions in (mm)	NG80	NG100	
D1	9.84 (250)	11.81 (300)	
H1	5.91 (150)	6.30 (160)	
H2	4.37 (111)	4.37 (111)	
H3	2.76 (70)	2.76 (70)	
H4	4.84 (123)	4.84 (123)	
L1	1.73 (44)	.75 (19)	
B1	2.76 (70)	2.76 (70)	
s1	UNC	$1'' \times 6\frac{1}{2}''$	$1\frac{1}{4}'' \times 6\frac{1}{2}''$
	Metric	M24X160	M30X160
Tightening Torque	ft-lb	675	1350
	N-m	900	1800

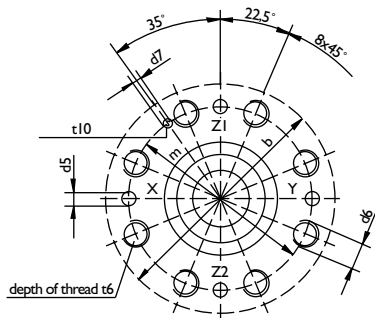
Note: Fastening screws are not part of the delivery.

## Cavity and Porting Pattern as per DIN 24342



**NG16-NG63**

Dimensions [mm]	NG16	NG25	NG32	NG40	NG50	NG63
b1	65	85	102	125	140	180
b2	65	85	102	125	140	180
d1 H7	32	45	60	75	90	120
d2 H7	25	34	45	55	68	90
d3	16	25	32	40	50	63
d3 max	17	25	32	43	54	66
d4	16	25	32	40	50	63
d4 max	25	32	40	50	63	80
d5 max	4	6	8	10	10	12
d6	M8	M12	M16	M20	M20	M30
d7 H13	6	6	6	6	8	8
m1 ±0.2	46	58	70	85	100	125
m2 ±0.2	25	33	41	50	58	75
m3 ±0.2	23	29	35	42.5	50	62.5
m4 ±0.2	10.5	16	17	23	30	38
m5 ±0.2	25	33	41	50	58	75
t1 +0.1	43	58	70	87	100	130
t2 +0.1	56	72	85	105	122	155
t3	11	12	13	15	17	20
t4	34	44	52	64	72	95
t4 at d4 max	29.5	40.5	48	59	65.5	86.5
t5	20	30	30	30	35	35
t6	20	25	35	45	45	65
t7	2	2.5	2.5	3	4	4
t8	2	2.5	2.5	3	4	4
t9 cont. dim. min.	0.5	1.0	1.5	2.5	2.5	3
t10 min.	10	10	10	10	10	10
U	0.03	0.03	0.03	0.05	0.05	0.05
W	0.05	0.05	0.1	0.1	0.1	0.2



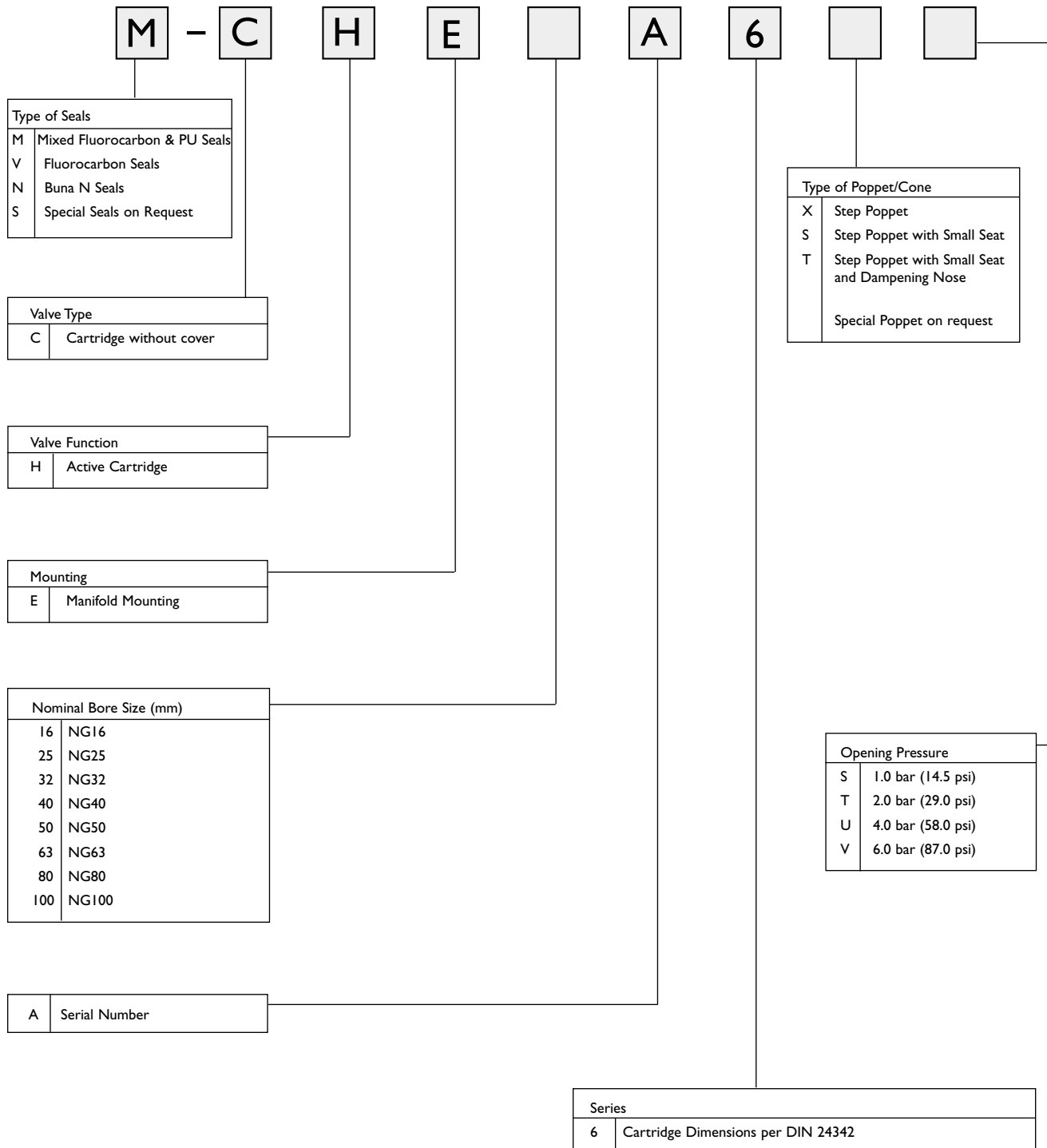
**NG80-NG100**

Dimensions [mm]	NG80	NG100
b max	250	300
d1 H7	145	180
d2 H7	110	135
d3	80	100
d3 max	82	107
d4	80	100
d4 max	104	120
d5 max	16	20
d6	M24	M30
d7 H	10	10
t1	175	210
t2 +0.2	205	245
t3	25	29
t4	130	155
t4 at d4 max	118	145
t5	40	50
t6	45	55
t7	5	5
t8	5	5
t9 cont. dim. min.	5	5
t10 min.	10	10
m ±0.3	200	245
U	0.05	0.05
W	0.2	0.2

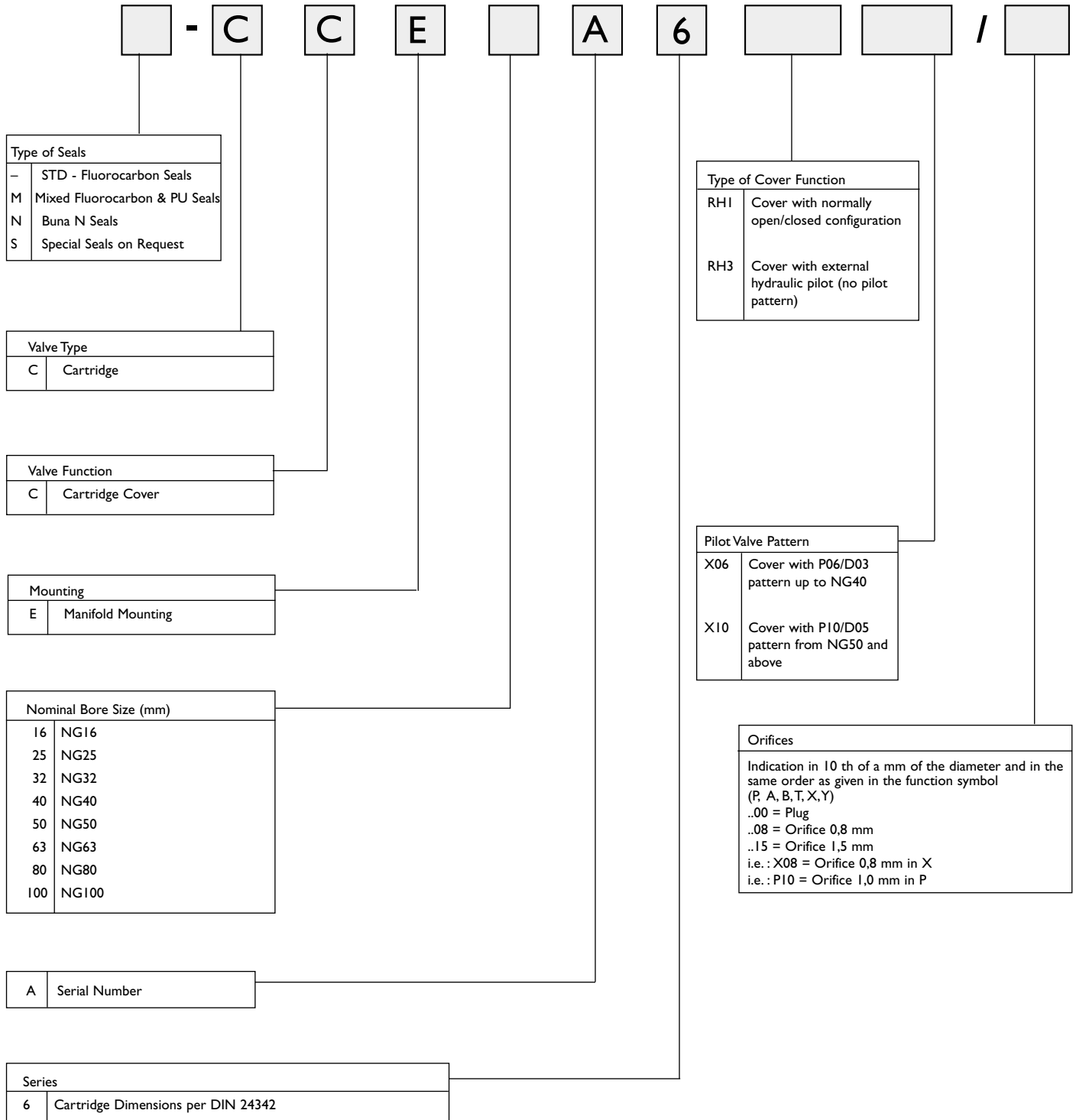


# Ordering Information

## Active Cartridge Only

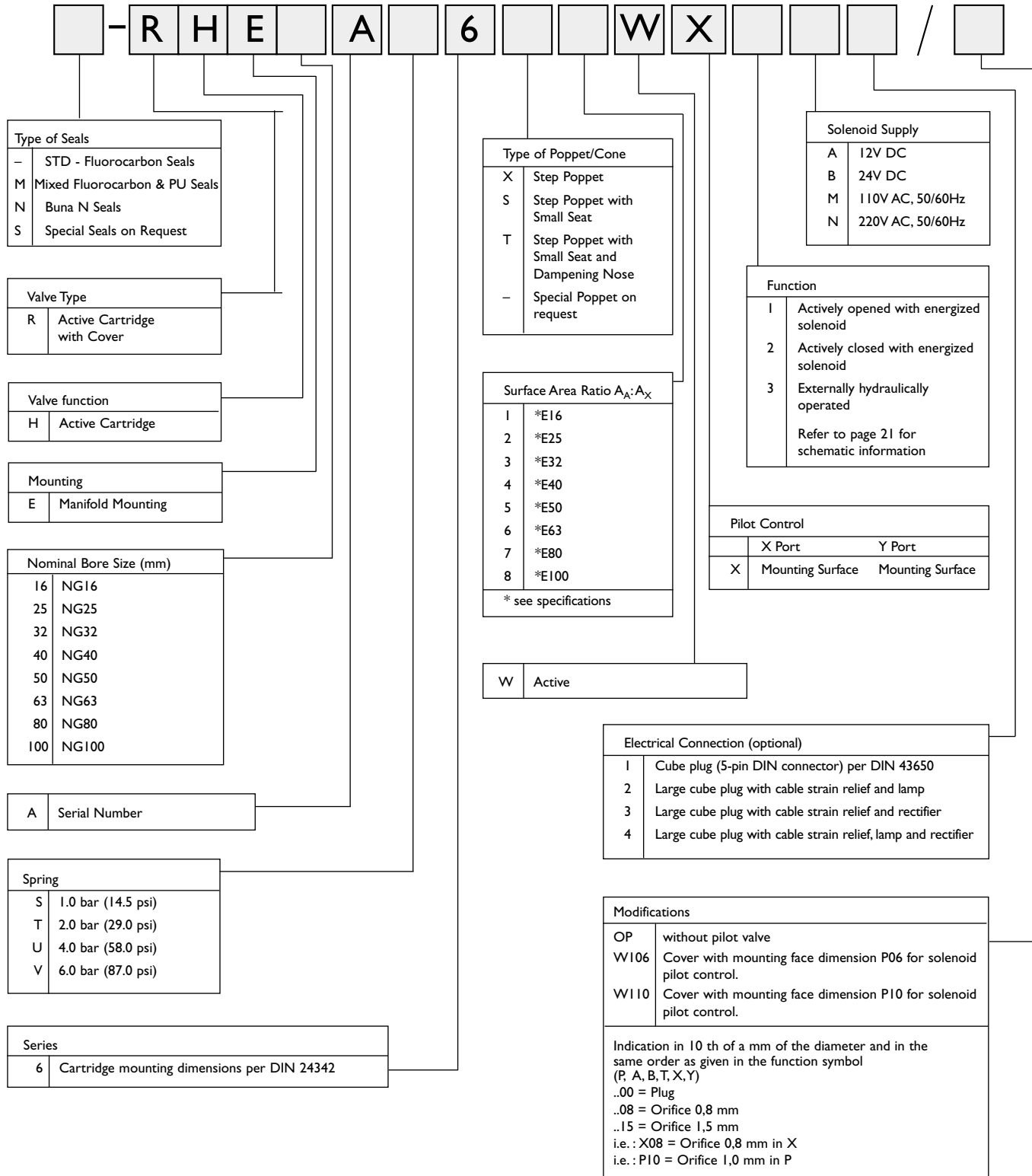


## Active Cartridge Covers Only

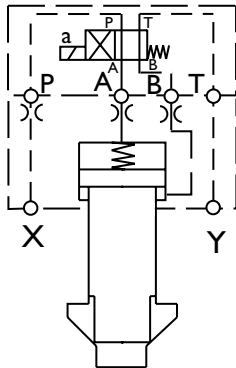


# Ordering Information

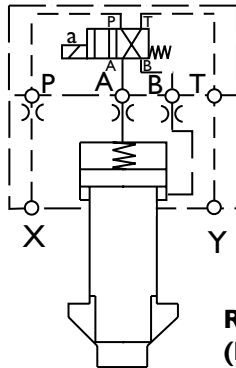
## Active Cartridge (Complete with Cover)



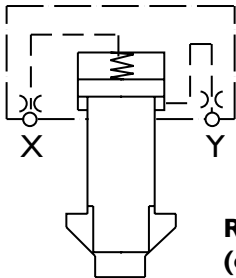
Subject to technical changes.  
Not all combinations are available.



**RHE...WX1..**  
(Normally Closed - Energize solenoid to open)

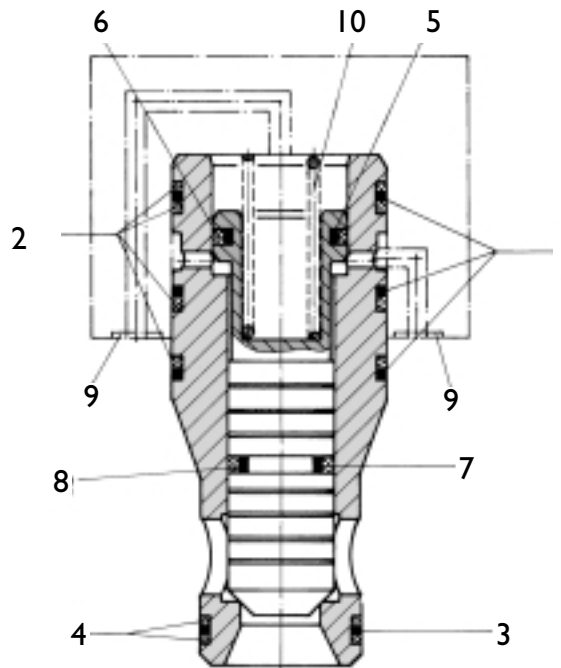


**RHE...WX2..**  
(Normally Open - Energize solenoid to close)



**RHE...WX3..**  
(externally hydraulically operated)

# Spare Parts



Pos.	Designation	Order Number								
			NG16	NG25	NG32	NG40	NG50	NG63	NG80	NG100
	Seal Kit	XEB	12240	12241	12242	12243	12244	12245	12246	12247
1	O-Ring 80 Shore	X980-	02024	02129	02227	02231	02338	02347	02430	02439
2	Back-Up Ring	X780-	18024	18129	08227	18231	18338	08348	08431	18439
3	O-Ring 80 Shore	X980-	02020	02122	02222	02225	02229	02338	02344	02427
4	Back-Up Ring	X780-	08020	18122	18222	18225	18229	18338	18344	18427
5	O-Ring 70 Shore	X980-	02112	02116	02123	02222	02228	02336	02343	02425
6	Turcon Glyd Ring	X780-	40200	40280	40380	40500	40700	40900	41100	41330
7	O-Ring 70 Shore	X980-	02109	02113	02118	02123	02224	02228	02335	02343
8	Turcon Glyd Ring	X780-	40160	40220	40300	40380	40550	40700	40850	41100
9	O-Ring 80 Shore	X980-	02010	02012	02013	02112	02112	02116	02215	02220
	<b>Springs</b>									
10	Spring S - 14.5 psi (1.0 bar)	XEF	10006	10013	10138	10106	10037	10044	10051	10058
10	Spring T - 29.0 psi (2.0 bar)	XEF	10007	10014	10140	10105	10038	10045	10052	10059
10	Spring U - 58.0 psi (4.0 bar)	XEF	10008	10015	10191	10104	10173	10046	10052 10250	10059 10253
10	Spring V - 87.0 psi (6.0 bar)	XEF	10009	10015 10016	—	—	—	—	—	—

**Order examples:**

O-Ring Item 5 for NG25  
Order number: X980-02116

Spring 29.0 psi (2.0 bar) Item 10 for NG25  
Order number: XEF10014



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