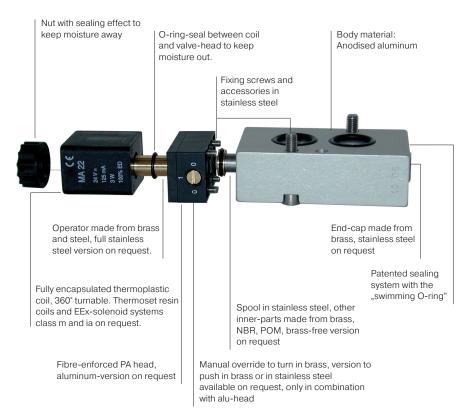
Besides maximum flow of 1.250 NI/min at compact design there are 11 more competitive advantages of the Hafner valve series 701.

page 16



Different customers have demand for different manual overrides. Hafner offers a standard but on demand variations are an option.



### Series MH

Manual override to turn by screw driver:

- · Direct acting valves
- · 22+ mm wide valves (by default)





### Series MD

Manual override to push, momentary:

- · Direct acting valves
- · 16 mm wide valves (by default)
- · 22+ mm wide valves





### Series MF

Manual override to turn by hand:

- · Direct acting valves
- · 22+ mm wide valves





### Series MHF

Manual override to turn by hand and recess for screw-driver use:

- · Direct acting valves
- · 22+ mm wide valves





### Series MHD

Manual override to push plus detent position by turning:

- · Direct acting valves
- 16 mm wide valves
- · 22+ mm wide valves





### M-Version

Without manual override:

· An option for all 22 mm + wide valves





# **General Technical Information** for Hafner Valves

page 17

### Temperature range:

Type-number	Temperature range
BV, BR, BL, BA	-20°C to +50°C
BG, BH	-10°C to +60°C
HV, HVR, P	-10°C to +60°C
MH, MNH DC-version	-10°C to +60°C
MH, MNH AC-version	-10°C to +50°C
MD, MK	-10°C to +50°C
TT series 500/700	-50°C to +50°C
TT series 121	-40°C to +50°C

Several customer-specific items have been catered for an enlarged temperature range.

### Leakage rate at 6 bar pressure:

All (100 % of) the Hafner-valves leaving the factory are individually tested on function and leakage.

The following leakage rate is allowed and a valve is still rated as good with the following:

Port size	Valve series	Allowed leaked r	rate in cm³/min
		Internal	External
M5 - G 1/4"	Direct acting	4	2
M5	201	4	2
M5	301	4	2
G 1/8"	401	4	2
G 1/8"	501	4	2
G 1/4"	701	6	3
G 1/4"	801	7	3,5
G 3/8"	101	11	5,5
G 1/2"	121	15	7,5
G 3/4"	181	30	15

Low temp	erature valves o	of the "TT-series" be	elow -40°C
G 1/8"	501 TT	10	5
G 1/4"	701 TT	10	5

### **General Warranty:**

The general warranty is 12 month from delivery. Warranty expires when valves have been opened.

### Recommended signal length:

The recommended signal length to reach full flow is 50 msek.

### Operation and required air-quality:

The valves are designed for being used with cleaned and lubricated or cleaned and unlubricated compressed air.

Required Air-quality-level in accordance to ISO 8573-1:2010: 7 - 4 - 4 for particles - water - oil Please dimension the valves according to the required orifice size. Significant overdimensioning, equivalent to a significantly larger orifice size of the valve in relation to the air supply, can lead to switching problems and pressure drops.

### Lubrication:

Valves do not require any lubrication but lubrication in general increases the life-time of the products. Please avoid to lubricate the valves during a certain period of time and let them run dry later. For low-temperatureitems: Do not lubricate as most kinds of oil and grease do not properly operate below - 25°C.

### Voltage tolerance:

The general voltage tolerance of all solenoid systems is +/- 10%.

	standard valves		stainless steel		low temperature			
standard materials used for HAFNER-valves		M5 - G1/8" - G1/4" G3/8" - G1/2" - G3/4"		G1/4"		G1/2"	G1/4"	G1/2*
		M3-41/6 -41/4	03/0 -01/2 -03/4	VES	KES	01/2	G1/4	G1/2
valve	body	anodised aluminum, 5 - 8 µm	anodised aluminum, 5 - 8 µm	stainless steel 1.4404	stainless steel 1.4404	stainless steel 1.4404	anodised aluminum, 5 - 8 µm	anodised aluminum, 5 - 8 μm
	body	PA 6.6 30% glass filled	anodised aluminum, 5 - 8 µm	stainless steel 1.4404	PA 6.6 30% glass filled	stainless steel 1.4404	anodised aluminum, 5 - 8 µm	anodised aluminum, 5 - 8 μm
	inner parts	brass NBR	brass NBR	stainless steel 1.4404 FPM	stainless steel 1.4404 FPM	stainless steel 1.4404 FPM	brass NBR	brass NBR
pilot-head	operator	brass magnetic stainless steel FPM	brass magnetic stainless steel FPM	stainless steel 1.4305 magnetic stainless steel FPM	stainless steel 1.4305 magnetic stainless steel FPM	stainless steel 1.4305 magnetic stainless steel FPM	brass magnetic stainless steel NBR	brass magnetic stainless steel NBR
sp	ool	stainless steel 1.4104	stainless steel 1.4104	stainless steel 1.4404	stainless steel 1.4404	stainless steel 1.4404	stainless steel 1.4104	stainless steel 1.4104
sealing	g system	brass NBR	brass NBR	stainless steel 1.4404 PUR	stainless steel 1.4404 PUR	stainless steel 1.4404 FKM	brass PUR	brass PUR
other in	ner parts	brass NBR POM	brass NBR POM	stainless steel 1.4404 FPM POM	stainless steel 1.4404 FPM POM	stainless steel 1.4404 FPM POM	brass NBR POM	brass NBR POM

	BA-valves	HV-valves	BH-valves	BHP-valves
actuating elements	PA 6.6 30% glass filled	duroplast FP 31 P/PA	duroplast FP 31 P/PA	ABS-plastic

In accordance to CETOP position paper "PP07 Machine Directive 2006/42/EC": Single valves placed on the market are not ... within the meaning of Annex V, point 4 of Machine Directive 2006/42/EC.

The Hafner company policy is one of a continuous improvement process. We therefore reserve the right to amend, enhance and change specifications of the products presented in this document without notice.



# Type numbering system on the basis of MNH 510 701 24DC

page 18

# Block 1

### Actuation

М	Solenoid valve	Without manual over
MMD	Solenoid valve with momentary manual override	10 mm
MD	Solenoid valve with momen-	normally 16 mm
MOD	tary manual override Solenoid valve with momen-	normally 16 mm
WOD	tary manual override	2- and 3-way n.o.
МН	Solenoid valve with bistable manual override	normally 22 mm plu
MOH	Solenoid valve with bistable	normally 22 mm plu
	manual override	2- and 3-way n.o.
MEH	Solenoid valve with bistable manual override	With external pilot for
MNH	Solenoid valve with bistable manual override	NAMUR-interface
MNOH	Solenoid valve with bistable	NAMUR-interface
	manual override	2- and 3-way n.o.
MK	Solenoid valve with momentary manual override	Low power
MNK	Solenoid valve with momen-	Low power
	tary manual override	NAMUR-interface
-		
P	Pneumatically actuated valve	
⊔\/	Lover estuated value with enri	ina raturn

M MMD	Solenoid valve Solenoid valve with momen-	Without manual override 10 mm
MD	tary manual override Solenoid valve with momen- tary manual override	normally 16 mm
MOD	Solenoid valve with momentary manual override	normally 16 mm 2- and 3-way n.o.
МН	Solenoid valve with bistable manual override	normally 22 mm plus
МОН	Solenoid valve with bistable manual override	normally 22 mm plus 2- and 3-way n.o.
MEH	Solenoid valve with bistable manual override	With external pilot feed
MNH	Solenoid valve with bistable manual override	NAMUR-interface
MNOH	Solenoid valve with bistable	NAMUR-interface
N 417	manual override	2- and 3-way n.o.
MK	Solenoid valve with momentary manual override	Low power
MNK	Solenoid valve with momen-	Low power
141141	tary manual override	NAMUR-interface
Р	Pneumatically actuated valve	
HV	Lever actuated valve with spri	ing return
HV HVR	Lever actuated valve with spri Lever actuated valve indexed	ing return
HV HVR BV/BG	Lever actuated valve with spri Lever actuated valve indexed Stem actuated valve	ing return
HV HVR BV/BG BZ	Lever actuated valve with spri Lever actuated valve indexed Stem actuated valve Stem actuated valve, actuation	ing return
HV HVR BV/BG BZ BR	Lever actuated valve with spri Lever actuated valve indexed Stem actuated valve Stem actuated valve, actuation Roller lever valve	on by pulling the stem
HV HVR BV/BG BZ BR BL	Lever actuated valve with spri Lever actuated valve indexed Stem actuated valve, Stem actuated valve, actuation Roller lever valve Roller lever valve with idle ret	on by pulling the stem
HV HVR BV/BG BZ BR BL BA	Lever actuated valve with spri Lever actuated valve indexed Stem actuated valve Stem actuated valve, actuation Roller lever valve Roller lever valve with idle ret Valve for panel mounting	on by pulling the stem
HV HVR BV/BG BZ BR BL	Lever actuated valve with spri Lever actuated valve indexed Stem actuated valve Stem actuated valve, actuation Roller lever valve Roller lever valve with idle ret Valve for panel mounting Push-pull button valve for pare	ing return on by pulling the stem urn nel mounting
HV HVR BV/BG BZ BR BL BA BH	Lever actuated valve with spri Lever actuated valve indexed Stem actuated valve Stem actuated valve, actuation Roller lever valve Roller lever valve with idle ret Valve for panel mounting	ing return on by pulling the stem urn nel mounting
HV HVR BV/BG BZ BR BL BA BH	Lever actuated valve with spri Lever actuated valve indexed Stem actuated valve, actuation Roller lever valve Roller lever valve with idle ret Valve for panel mounting Push-pull button valve with pri	ing return on by pulling the stem urn nel mounting
HV HVR BV/BG BZ BR BL BA BH BHP	Lever actuated valve with spri Lever actuated valve indexed Stem actuated valve, actuation Roller lever valve Roller lever valve with idle ret Valve for panel mounting Push-pull button valve for par Push-pull button valve with pro OR-gate AND-gate Quick-exhaust valve	on by pulling the stem  urn  nel mounting neumatic reset
HV HVR BV/BG BZ BR BL BA BH BHP VA ES SE DR	Lever actuated valve with spri Lever actuated valve indexed Stem actuated valve, actuation Roller lever valve Roller lever valve with idle ret Valve for panel mounting Push-pull button valve for par Push-pull button valve with pro OR-gate AND-gate Quick-exhaust valve Flow regulator, uni-directions	on by pulling the stem  urn  nel mounting neumatic reset
HV HVR BV/BG BZ BR BL BA BH BHP VA ES SE DR D	Lever actuated valve with spri Lever actuated valve indexed Stem actuated valve, actuation Roller lever valve Roller lever valve with idle ret Valve for panel mounting Push-pull button valve for pan Push-pull button valve with pro OR-gate AND-gate Quick-exhaust valve Flow regulator, uni-directional Flow regulator, bi-directional	ing return on by pulling the stem urn nel mounting neumatic reset
HV HVR BV/BG BZ BR BL BA BH BHP VA ES SE DR D DRN	Lever actuated valve with spri Lever actuated valve indexed Stem actuated valve, actuation Roller lever valve Roller lever valve with idle ret Valve for panel mounting Push-pull button valve for par Push-pull button valve with pro OR-gate AND-gate Quick-exhaust valve Flow regulator, uni-directional Flow regulator with NAMUR-i	ing return on by pulling the stem urn nel mounting neumatic reset
HV HVR BV/BG BZ BR BL BA BH BHP VA ES SE DR D DRN UB	Lever actuated valve with spri Lever actuated valve indexed Stem actuated valve, actuation Roller lever valve Roller lever valve with idle ret Valve for panel mounting Push-pull button valve for pan Push-pull button valve with pro OR-gate AND-gate Quick-exhaust valve Flow regulator, uni-directional Flow regulator with NAMUR-i Air-recirculation block with Names	ing return on by pulling the stem urn nel mounting neumatic reset al nterface AMUR-interface
HV HVR BV/BG BZ BR BL BA BH BHP VA ES SE DR D DRN UB SENR	Lever actuated valve with spri Lever actuated valve indexed Stem actuated valve, actuation Roller lever valve Roller lever valve with idle ret Valve for panel mounting Push-pull button valve for pan Push-pull button valve with pro OR-gate AND-gate Quick-exhaust valve Flow regulator, uni-directional Flow regulator, bi-directional Flow regulator with NAMUR-i Air-recirculation block with NA Quick-Exhaust block with NA	ing return on by pulling the stem urn nel mounting neumatic reset al nterface AMUR-interface MUR-interface
HV HVR BV/BG BZ BR BL BA BH BHP VA ES SE DR D DRN UB	Lever actuated valve with spri Lever actuated valve indexed Stem actuated valve, actuation Roller lever valve Roller lever valve with idle ret Valve for panel mounting Push-pull button valve for par Push-pull button valve with pro OR-gate AND-gate Quick-exhaust valve Flow regulator, uni-directional Flow regulator, bi-directional Flow regulator with NAMUR-i Air-recirculation block with NA Quick-Exhaust block with NA Block and block / block and block	ing return on by pulling the stem urn nel mounting neumatic reset al nterface AMUR-interface MUR-interface
HV HVR BV/BG BZ BR BL BA BH BHP VA ES SE DR D DRN UB SENR	Lever actuated valve with spri Lever actuated valve indexed Stem actuated valve, actuation Roller lever valve Roller lever valve with idle ret Valve for panel mounting Push-pull button valve for pan Push-pull button valve with pro OR-gate AND-gate Quick-exhaust valve Flow regulator, uni-directional Flow regulator, bi-directional Flow regulator with NAMUR-i Air-recirculation block with NA Quick-Exhaust block with NA	on by pulling the stem  urn  nel mounting neumatic reset  al  nterface AMUR-interface MUR-interface bleed valves

### **Function**

Second number:	1 = actuation by permanent signal,	

2 = actuated by impulse

3 = 3-way valves  $53_ = 5/3$ -way valves

 $33_=3/3$ -way valves

Third number: For 5/3-way and 3/3-way valves:

1 = middle position closed 2 = middle position exhausted 3 = middle position pressurized

Other valves:

0 = pneumatical spring 1 = mechanical spring

(MH-, MNH- and PN-valves have a

combined spring)

210 310	2/2-way 3/2-way	Pneumatic spring return
	,	Pneumatic spring return
311	3/2-way	Combined / mechanical spring return
		(depends on type)
320	3/2-way	Double solenoid
510	5/2-way	Pneumatic spring return
511	5/2-way	Combined / mechanical spring return
		(depends on type)
520	5/2-way	Double solenoid
531	5/3-way	Centre closed
532	5/3-way	Centre exhausted
533	5/3-way	Centre pressurized



ZPN

Various accessory plates

The Hafner valve type numbering system consists of at least 3 blocks.

Block 4 to be used for voltage indication or special suffixes.

Please note: This overview is not intended to be exhaustive.

page 19

## Block 3 Block 4

# Size & Position of Ports

### In-line valves:

	Orifice size	Ports	Position of Ports
201	2 mm	M5	Standard
202	2 mm	M5	On one side
243	2 mm	Pif 4 mm	Side of valve
301	3 mm	G 1/8"	Standard
302	3 mm	M5	On one side
341	3 mm	Pif 4 mm	Standard
401	4 mm	G 1/8"	Standard
461	4 mm	Pif 6 mm	Standard
442	4 mm	Pif 4 mm	On one side
462	4 mm	Pif 6 mm	On one side
501	5 mm	G 1/8"	Standard
502	5 mm	G 1/8"	On one side
701	7 mm	G 1/4"	Standard
711	7 mm	G 1/4"	Ports swapped
			(NAMUR valves only)
801	8 mm	G 1/4"	Standard
101	10 mm	G 3/8"	Standard
121	12 mm	G 1/2"	Standard
181	18 mm	G 3/4"	Standard

## **Suffixes**

Block 4 is to be used to indicate the voltage at solenoid valves or to give further information on special executions. Block 4 can consist of several suffixes.

0.100 10.100 04.100 1000 044.0

Voltages	6VDC, 12VDC, 24VDC, 48DC, 24AC,
	110AC, 230AC
O.S.	without coil
NPT	NPT threads
TT	Low temperature
HT	High temperature
VES	Full stainless steel
KES	Stainless steel with PA pilot-head
G	Valves can be used in-line and also
	on manifold plates
Ex	ATEX-approved non-electrical valve
Ex ia	ATEX-approved for Ex ia coils
Ex m	ATEX-approved for Ex m coils
Ex nA	ATEX-approved for Ex nA coils
Ex e mb	ATEX-approved for Ex e mb coils
Ex dm	ATEX-approved for Ex dm coils
Ex d	ATEX-approved for Ex d coils
EDS	Brass-free to the outside
BMF	Entirely brass-free

### Direct acting valves:

	Orifice size	Ports	Position of Ports
010	1 mm	M5	Standard
012	1,2 mm	M5	Standard
015	1,2 mm	G 1/8"	Standard
205	2 mm	G 1/8"	Standard
209	2 mm	G 1/4"	Standard
305	3 mm	G 1/8"	Standard
309	3 mm	G 1/4"	Standard
014	1,2 mm	G 1/8"	Banjo-screw (port 2)
019	1,2 mm	G 1/8" – pif 6 mm	Banjo-screw (port 2)
013	1,2 mm	G 1/8"	Banjo-screw (port 2)
017	1,2 mm	G 1/8" – G 1/4"	Banjo-screw (port 2)
313	3 mm	G 1/8"	Banjo-screw (port 2)
317	3 mm	G 1/8" – G 1/4"	Banjo-screw (port 2)

### Valves for manifold assembly:

Orifice size	Ports	Position of Ports
1,2 mm	G 1/4" – G 1/8"	Modular system, direct acting
3 mm	G 1/4"	Modular system, direct acting
3 mm	G 1/4"	Modular system, direct acting
3 mm	Flange for manifold	All on one side
5 mm	G 1/8"	
	Flange for manifold	1,3,5 on one side as flange
5 mm	Flange for manifold	All on one side
7 mm	G 1/8"	
	Flange for manifold	1,3,5 on one side as flange
7 mm	Flange for manifold	All on one side
10 mm	Flange for manifold	All on one side
	1,2 mm 3 mm 3 mm 3 mm 5 mm 5 mm 7 mm	1,2 mm G 1/4" – G 1/8" 3 mm G 1/4" 3 mm G 1/4" 3 mm Flange for manifold 5 mm G 1/8" Flange for manifold 5 mm Flange for manifold 7 mm G 1/8" Flange for manifold 7 mm Flange for manifold

Please note: Valves type "G" (e.g. 701 G) can be used as an in-line valve as well as for manifold assembly.



# **Quick Finder for Manifold Systems**

page 20

We offer a large variety of manifold systems. In order to choose the appropriate combination of manifold plate and solenoid valves please consult the list below.

The different valves which can be assembled to one type of manifold plate are described in the same row. Manifold systems that can be equipped with our D-Sub-terminal system are indicated by a  ${\bf T}$  in the last column.

Valves that can be used in-line and on manifold plates are indicated by a G.

Modular Manifold-System indicated by a B.

### 3 way solenoid valves

position of ports		port size		manifold		3/2 way single sol.			3/2 way do	uble sol.	comment			
1	2	3	1	2	3	type	page	type n.c.	type n.o.	page	type	page		
plate	plate	valve	G 1/8"	M5	operator	RD 3 104	4 2.5.1.2.1	MD 311 104	n.a.	2.5.1.2.1	n.a.	n.a.	direct acting	Т
plate	plate	valve	G 1/8"	pif 4 mm	operator	RD 3144	2.5.1.2.1	MD 311 104	n.a.	2.5.1.2.1	n.a.	n.a.	direct acting	Т
plate	valve	valve	G 1/4"	M5	operator	R	2.7.1.1	MH 312	n.a.	2.5.1.2.2	n.a.	n.a.	direct acting	
plate	valve	valve	G 1/4"	G 1/8"	operator	R	2.7.1.1	MH 315	n.a.	2.5.1.2.2	n.a.	n.a.	direct acting	
plate	valve	valve	G 1/4"	pif 4 mm	operator	R	2.7.1.1	MH 314	n.a.	2.5.1.2.2	n.a.	n.a.	direct acting	
plate	valve	valve	G 1/4"	pif 6 mm	operator	R	2.7.1.1	MH 316	n.a.	2.5.1.2.2	n.a.	n.a.	direct acting	
plate	plate	valve	G 1/4"	G 1/4"	G 1/8"	R 33	2.5.1.2.3	MH 339	n.a.	2.5.1.2.3	n.a.	n.a.	direct acting	В
plate	valve	plate	G 1/8"	pif 4 mm	G 1/8"	RD 3 30	3 2.7.1.2	MD 310 343	MOD 310 343	2.5.1.2.4	n.a.	n.a.	3/2 way valves	Т
plate	valve	plate	G 1/4"	pif 6 mm	G 1/4"	RD 3 40	3 2.7.1.2	MD 310 463	MOD 310 463	2.5.1.2.4	n.a.	n.a.	3/2 way valves	Т
plate	valve	plate	G 1/4"	G 1/8"	G 1/4"	RD 340	3 2.7.1.2.	MD 310 403	MOD 310 403	2.5.1.2.4	n.a.	n.a.	3/2 way valves	Т
plate	plate	plate	G 3/8"	pif 4 mm	G 3/8"	RM 5 34	4 2.6.2.4		MMD 23_304	2.6.2.1			double 3/2 way valves	Т
plate	plate	plate	G 1/4"	pif 4 mm	G 1/4"	RD 334	4 2.7.1.3	MD 310 304	MOD 310 304	2.5.1.2.5	n.a.	n.a.	3/2 way valves	Т
plate	plate	plate	G 1/4"	pif 6 mm	G 1/4"	RD 3 46	4 2.7.1.3	MD 310 404	MOD 310 404	2.5.1.2.5	n.a.	n.a.	3/2 way valves	Т
plate	valve	plate	G 1/4"	G 1/8"	G 1/4"	RB 3 50	3 G 2.7.1.4	MH 310 501 G	MOH 310 501 G	2.5.1.1.16	MH 320 501 G	2.5.1.1.20	3/2 way valves	GB
plate	valve	plate	G 3/8"	G 1/4"	G 3/8"	RB 370	3 G 2.7.1.4	MH 310 701 G	MOH 310 701 G	2.5.1.1.16	MH 320 701 G	2.5.1.1.20	3/2 way valves	GT
plate	valve	plate	G 3/8"	G 1/4"	G 3/8"	RB 370	3 G 2.7.1.4	MH 331 701 G		2.5.1.3			3/3 way valves	G
plate	valve	plate	G 1/2"	G 3/8"	G 1/2"	RB 3 10	3 G 2.7.1.5	MH 310 101 G	MOH 310 101 G	2.5.1.1.17	MH 320 101 G	2.5.1.1.20	3/2 way valves	GB
plate	valve	plate	G 1/2"	G 1/2"	G 1/2"	R 3 121 (	G 2.7.1.5	MH 310 121 G	MOH 310 121 G	2.5.1.1.17	MH 320 121 G	2.5.1.1.20	3/2 way valves	G
plate	valve	plate	G 1/2"	G 1/2"	G 1/2"	R 3 121 (	G 2.7.1.5	MH 331 121 G		2.5.1.3			3/3 way valves	G

### 5 way solenoid valves

position of ports		port size		manifold		5/2 single sol.		5/2 doub	le sol.	5/3 way				
1	2+4	3+5	1	2+4	3+5	type	page	type	page	type	page	type	page	
plate	valve	plate	G 1/8"	M5	G1/8"	RD 5303	2.7.2.1	MD 510 303	2.5.2.2.1	MD 520 303	2.5.2.2.5	MD 53_303	2.5.3.2.1	
olate	valve	plate	G 1/8"	pif 4 mm	G1/8"	RD 5303	2.7.2.1	MD 510 343	2.5.2.2.1	MD 520 343	2.5.2.2.5	MD 53_343	2.5.3.2.1	
olate	valve	plate	G 1/4"	G 1/8"	G1/4"	RD 5 403	2.7.2.1	MD 510 403	2.5.2.2.1	MD 520 403	2.5.2.2.5	MD 53_403	2.5.3.2.1	
olate	valve	plate	G 1/4"	pif 6 mm	G1/4"	RD 5 403	2.7.2.1	MD 510 463	2.5.2.2.1	MD 520 463	2.5.2.2.5	MD 53_463	2.5.3.2.1	
olate	valve	plate	G 1/4"	G 1/8"	G1/4"	RB 5 503 G	2.7.2.2	MH 510 501 G	2.5.2.1.5	MH 520 501 G	2.5.2.1.11	MH 53_ 501 G	2.5.3.1.4	
olate	valve	plate	G 1/4"	G 1/8"	G 1/4"	RB 5 503 G	2.7.2.2	MH 510 503	2.5.2.2.2	MH 520 503	2.5.2.2.6	MH 53_ 503	2.5.3.2.2	2
olate	valve	plate	G 3/8"	G 1/4"	G 3/8"	RB 5703 G	2.7.2.3	MH 510 701 G	2.5.2.1.5	MH 520 701 G	2.5.2.1.11	MH 53_ 701 G	2.5.3.1.4	
olate	valve	plate	G 3/8"	G 1/4"	G 3/8"	RB 5703 G	2.7.2.3	MH 510 703	2.5.2.2.2	MH 520 703	2.5.2.2.6	MH 53_ 703	2.5.3.2.2	
olate	valve	plate	G 3/8"	G 1/4"	G 3/8"	RB 5803	2.7.2.5	MH 510 803	2.5.2.2.2	MH 520 803	2.5.2.2.6	MH 53_803	2.5.3.2.2	
olate	valve	plate	G 1/2"	G 3/8"	G 1/2"	RB 5 103 G	2.7.2.4	MH 510 101 G	2.5.2.1.6	MH 520 101 G	2.5.2.1.12	MH 53_ 101 G	2.5.3.1.5	
olate	valve	plate	G 1/2"	G 1/2"	G 1/2"	RB 5 121 G	2.7.2.5	MH 510 121 G	2.5.2.1.6	MH 520 121 G	2.5.2.1.12	MH 53_ 121 G	2.5.3.1.5	
olate	plate	plate	G 3/8"	pif 4 mm	G 3/8"	RM 5 344	2.6.2.4	MMD 510 304	2.6.2.2	MMD 520 304	2.6.2.2	MMD 53_304	2.6.2.3	
olate	plate	plate	G 1/8"	pif 4 mm	G 1/8"	RD 5344	2.7.2.6	MD 510 304	2.5.2.2.3	MD 520 304	2.5.2.2.7	MD 53_304	2.5.3.2.3	
olate	plate	plate	G 1/4"	pif 6 mm	G 1/4"	RD 5464	2.7.2.6	MD 510 404	2.5.2.2.3	MD 520 404	2.5.2.2.7	MD 53_404	2.5.3.2.3	
olate	plate	plate	G 1/4"	G 1/8"	G 1/4"	R 5304	2.7.2.7	MH 510 304	2.5.2.2.4	MH 520 304	2.5.2.2.8	MH 53_304	2.5.3.2.4	
olate	plate	plate	G 1/4"	G 1/8"	G 1/4"	R 5504	2.7.2.7	MH 510 504	2.5.2.2.4	MH 520 504	2.5.2.2.8	MH 53_ 504	2.5.3.2.4	
olate	plate	plate	G 3/8"	G 1/4"	G 3/8"	R 5704	2.7.2.8	MH 510 704	2.5.2.2.4	MH 520 704	2.5.2.2.8	MH 53_704	2.5.3.2.4	
olate	plate	plate	G 3/8"	pif 8 mm	G 3/8"	R 5784	2.7.2.8	MH 510 704	2.5.2.2.4	MH 520 704	2.5.2.2.8	MH 53_704	2.5.3.2.4	
olate	plate	plate	G 3/8"	G 1/4"	G 3/8"	RB 5 704 K	1 2.7.2.9	MH 510 704	2.5.2.2.4	MH 520 704	2.5.2.2.8	MH 53_ 704	2.5.3.2.4	
olate	plate	plate	G 1/2"	G 3/8"	G 1/2"	RB 5 104 K1	2.7.2.10	MH 510 104	2.5.2.2.4	MH 520 104	2.5.2.2.8	MH 53_ 104	2.5.3.2.4	

