

# MANAGEMENT SYSTEM CERTIFICATE

Certificate No:  
195588-2016-AQ-IBE-ENAC

Initial certification date:  
22 February 2016

Valid:  
22 February 2016 - 19 February 2019

This is to certify that the management system of

## **INDUSTRIAS TÉCNICAS DE VALVULERÍA, S.A.**

C/ Berguedà, 14-16 (Esq. Empordà), Pol. Ind. Can Bernardes - Subirà, 08130, Santa Perpetua de Mogoda, Barcelona, Spain

has been found to conform to the Quality Management System standard:  
**ISO 9001:2008**

This certificate is valid for the following scope:

**DESIGN, MANUFACTURE AND SALES OF QUICK COUPLINGS, CHECK VALVES  
AND BALL VALVES.**

Place and date:  
**Barcelona, 22 February 2016**



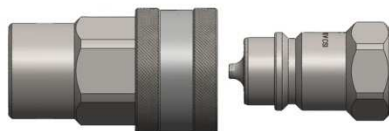
For the issuing office:  
**DNV GL – Business Assurance**  
Edificio Inbisa Mas Blau, C/ Garrotxa 6-8,  
3º 1ª, El Prat de Llobregat, 08820,  
Barcelona, Spain

**ANA TERESA DEL  
RIO SALGADO**

Digitally signed by ANA  
TERESA DEL RIO SALGADO  
Date: 2016.03.08 15:34:10  
+01'00'

**Ana del Rio Salgado**  
Management Representative

101 ..... ISO-A Series



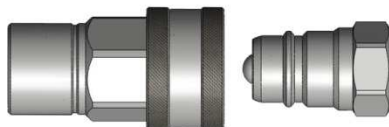
102 ..... ISO-A Series (Multi-rosclas)



103 ..... ISO-B Series



104 ..... DIN Series



105 ..... PSH Series



106 ..... DIA Series



107 ..... PSM Series



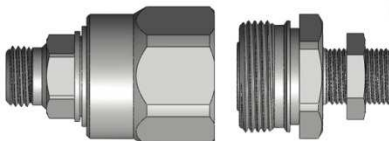
1077.....TNS Series



120 ..... IFR Series



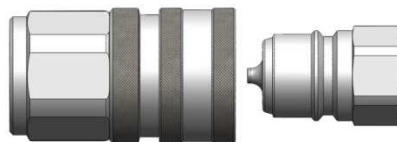
122 ..... AGR Series



123 ..... AGR + ISO-A Series



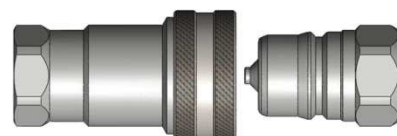
125 .....TFH Series



126 .....TPL Series



127 .....JAP Series

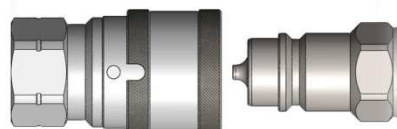


128 .....TVZ Series



129 .....ISO-A Series

(Camisa de Seguridad)



131 .....CPR Series



136 .....DRF Series



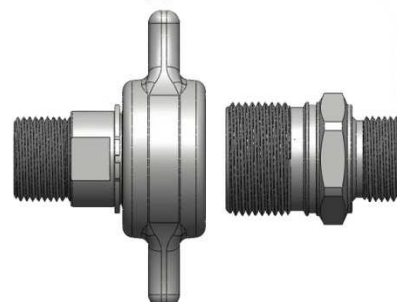
140 .....CVF Series



190 .....RBP Series



201 .....VCR Series



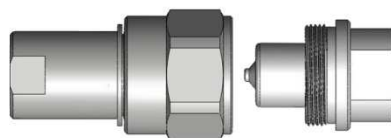
202 .....HPA Series



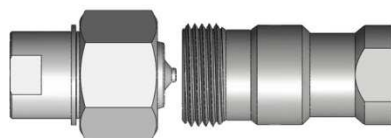
# INDEX



203 .....TGW Series



204 .....AEV Series



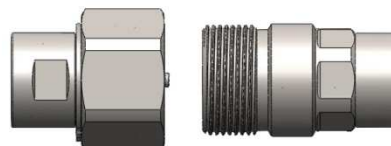
205 .....STG Series



206 .....SRK Series



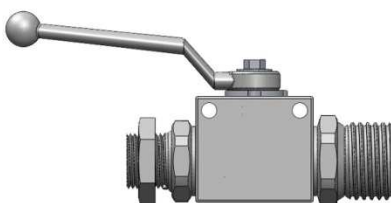
207 .....CAT Series



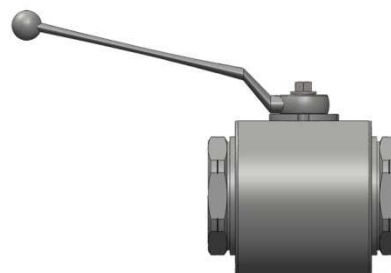
231 .....VPR Series



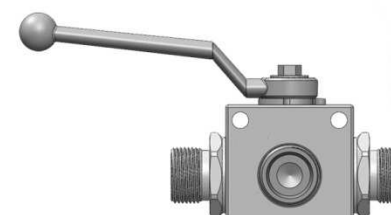
402 .....V2RH/V2MT Series



412 .....V2RD Series



432 .....V3RH/V3MT Series

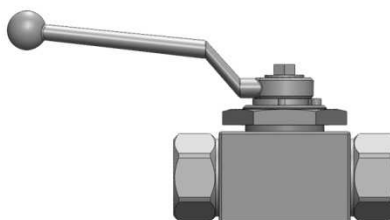


433 .....V3RH Series

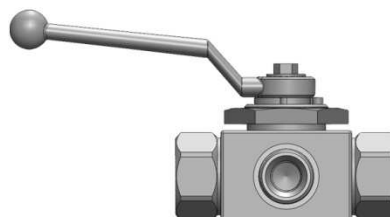




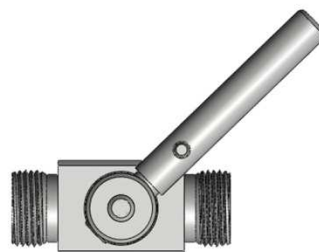
452 ..... V2CR Series



453 ..... V3CR Series



470 ..... EK2 Series



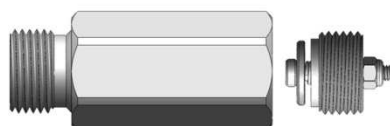
471 ..... EK3 Series



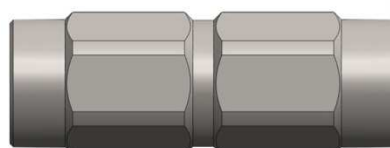
472 ..... VPN Series



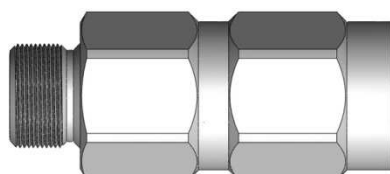
502 ..... VPC Series



504 ..... ATR Series



505 ..... ATR Series



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# DIRECTIONS FOR USE

## Quick Couplings



### Before installation!!!

- ✓ Read carefully the assembly and safety instructions.
- ✓ Installation of Quick Couplings can be only done by well **qualified personnel**.
- ✓ Check whether the **product meets the requirement** and if it has been damaged during transport.
- ✓ **Ensure that quick coupling is suitable for installation, required pressure, connection, flow characteristic and is compatible with the medium used.**
- ✓ Before installation **clean up hose and pipes.**
- ✓ Check that line **temperature** work within permitted limits.
- ✓ **Verify if maximal working pressure is equal or higher than the peak pressures of the application.**
- ✓ Verify that the **number of cycle impulses** of the product is compatible with those of the application.



### Start-up!!

- ✓ Installation of Quick couplings can be only done if the circuit is **depressurized**.
- ✓ Make sure the **energy supply is disconnected**.
- ✓ **Always wear protective clothing.**
- ✓ Use **flexible hoses** to withstand better the system vibration and mechanical tensions on the couplings.
- ✓ Use **appropriate tools** to act only over flat sides of the couplings
- ✓ Hose must be installed so that the connection/disconnection can be done easily and **aligned position**.
- ✓ **Make sure to work always within permitted limits on pressure and temperature.**
- ✓ Lubricate the seals and run always a **test connection** to ensure both halves connect correctly.
- ✓ **Connect screw couplings always up to the stop mark.**



### Storage

All our quick and screw couplings are brought through a heat and surface treatment to improve its conservation. We recommend:

- Store in cool, dry, and high places above the ground.
- Keep away from heat sources or direct impact of the sunlight.
- Review periodically the valves whether these have signs of corrosion, cracks and/or visible damages.



### Maintenance

- To avoid unexpected damages, **run regularly inspections**. If during inspection or first runs following conditions are detected, system should be turned off and the product replaced:
  - ✓ Malfunction
  - ✓ Presence of leakage
  - ✓ Visible damages, cracks and or corrosion
  - ✓ Difficulties by connecting/disconnecting
  - ✓ System contamination
- Sealing components should be lubricated with compatible lubricant.
- The maintenance period should be defined by the end user depending on the type of application and operating conditions.

*The functionality of the product can be affected by a wrong maintenance.*



### Warnings!!!

- ✗ **Avoid contaminating the hydraulic system.** Contaminated mediums can damage internal sealing components leading to leakages and malfunctions.
  - ✓ Before installation **clean up hose and pipes.**
  - ✓ Before connection **clean up** both halves male and female.
  - ✓ After disconnection **use our dust caps and plugs to protect** the couplings from dirt and external damages.
- ✗ **Lateral loads, vibration and mechanical stress in general, can cause misalignment of couplings** during connection / disconnection and can cause unwanted disconnection, damage the connection and sealing. It reduces significantly the life of the product. We recommend using flexible hoses.
- ✗ **Do never use inappropriate tool** e.g. clamp tools, hammers, key tools. It can damage the couplings leading to malfunction.
- ✗ While disconnecting, depending on the positioning and temperature the **residual pressure** can reach high values. **Do not use any tool to force the disconnection and relieve the pressure trapped inside.**
- ✗ **Operating over and under the permitted working pressure and temperature limits, leads to deterioration and leakages of the quick couplings.**
- ✗ **Do not connect and disconnect at temperatures < 80°C.** Operating between 30°C – 80°C use gloves and other safety devices to prevent injury itself, thirds, animals and/or objects.
- ✗ **Never rotate the couplings while under pressure.**
- ✗ **Use care if you must install quick couplings onto iron pipe.**
- ✗ In case of malfunction, quick coupling must be replaced by qualified personnel. First depressurize and drain the system. If necessary, out of service.
- ✗ **If our quick couplings are dismantled improperly without authorization, any warranty and damage claim against the manufacturer are null and void.**
- ✗ **Any changes on design or reworks on quick couplings e.g. dimensional or superficial, is strictly prohibited without previous consultation with the manufacturer.**
- ✗ This manual is not intended to replace any national regulation on accident prevention and local safety regulations of the operating company, which on this should be considered a priority.

**INTEVA and its distributors are not responsible for damages caused on people or machines for an improper use or incorrect maintenance of the products.**

**The product selection, installation, maintenance and use, is under end users responsibility.**

**The distributor must ensure that that all product requirements are met and must inform the end user about the product use and maintenance.**



### Elimination

In compliance with the laws of each country on the disposal of industrial waste, the quick couplings in disuse must be eliminated taking into account that all components can be recycled.

Consider that:

- Elimination and removal must be done by qualified personnel only.
- Before extraction, depressurize pipes and circuit. The quick couplings must relieve pressure from its cavity as well.

V160421





# DIRECTIONS FOR USE

## CPR Flat Face



### WARNINGS!

✖ **Avoid contaminating the system.** In this way, we avoid the waste inclusion that can damage the sealing elements. Contaminating the hydraulic fluid that leads to leakages and malfunctions.



If dirt enters in **Zone 1**, **internal sealing components can be damaged** (O-Ring, Back-up Ring)



*Dirt is the main cause of a malfunction on this part of the coupling.*



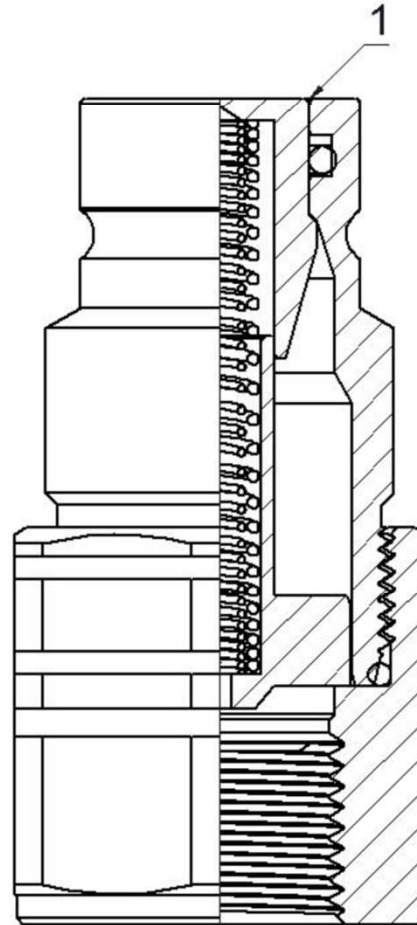
### Recommendations...

- ✔ Before installing, **clean-up the hoses and pipes.**
- ✔ Before connecting: **clean-up** carefully the flat faces either on male and female coupling.
- ✔ While disconnecting: never leave the couplings on the ground, use **our dust caps/plugs** to protect from contaminating and external damages.
- ✖ **Do not damage the flat side of the male coupling, Zone 1.** This can lead to damages on internal sealing components of the female half while connecting both parts.
- ✖ **Do not overload the coupling.** *Fix the hoses by flexible supports.*
- ✖ **Avoid rotations** between both couplings male and female.



*While connected it is difficult to detect leakages!*

*If the **sealing** components (O-Ring, Back-up Ring) of the male coupling are damaged, in most of the cases the leakage cannot be detected. While connecting, the damaged seal is exposed and leakages appear on the sleeves of the female coupling. Generally the female coupling as an individual element isn't damaged.*



**Do never use a SCREWDRIVER for moving the flat valves back, forcing the opening of these and relieve the residual pressure trapped in the circuit, running the risk to **damage the seals** by sliding on the smooth surface on the flat front.**

V160421







# DIRECTIONS FOR USE

## CPR Flat Face



### WARNINGS!

✖ **Avoid contaminating the system.** In this way, we avoid the waste inclusion that can damage the sealing elements. Contaminating the hydraulic fluid that leads to leakages and malfunctions.



*If dirt enters in Zone 1, 2 or 3, following failures can appear:*

1. **Male half and female half cannot be engaged.**
2. **Dirt can damage internal component 4.** When connected, female leaks.
3. **If dirt enters in Zone 5 it can affect the back movement of the sleeve what leads to an inappropriate connection between both halves.**
4. **Ensure pulling the sleeve totally down for a safety disconnection.**

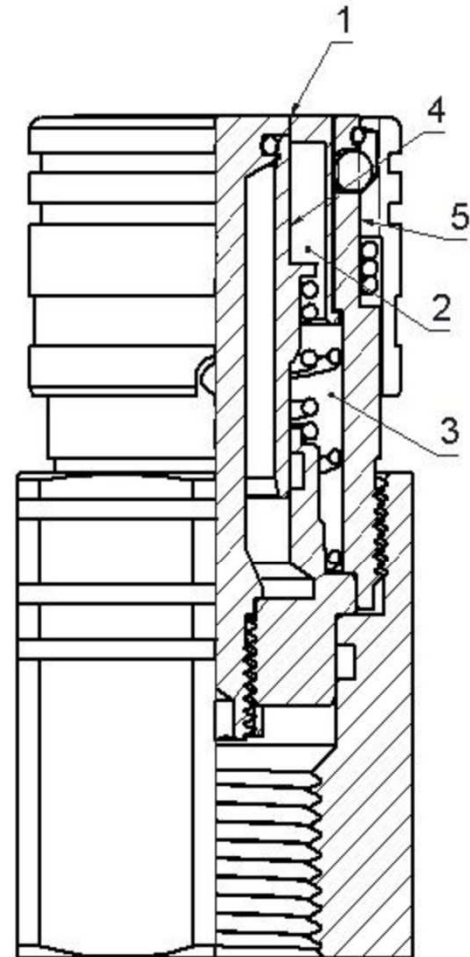


*Dirt is the main cause of a malfunction on this part of the coupling.*



### Recommendations...

- ✓ Before installing, **clean-up the hoses and pipes.**
- ✓ Before connecting: **clean-up** carefully the flat faces either on male and female coupling.
- ✓ While disconnecting: never leave the couplings on the ground, use **our dust caps/plugs** to protect from contaminating and external damages.



### Decompression...

*If female coupling is pressurized and pressure cannot be relieved by a control unit, the decompression of the female coupling is not possible.*

V160421







# DIRECTIONS FOR USE

## Ball Valves



### Before installation!!!

- ✓ Read carefully the assembly and safety instructions.
- ✓ Installation of the ball valves can be only done by well **qualified personnel**.
- ✓ Check whether the product meets the requirement and if it has been damaged during transport.
- ✓ **Ensure that valve is suitable for installation, required pressure, connection, flow characteristic and is compatible with the medium used.**
- ✓ **Before installation clean up hose and pipes.**
- ✓ Check that line temperature work within permitted limits.
- ✓ **Verify that the application pressure is equal or less than the maximum working pressure of the valve.**



### Start-up!!

- ✓ Installation of ball valves can be only done if the circuit is depressurized. **1**
- ✓ Make sure the energy supply is disconnected.
- ✓ Always wear protective clothing.
- ✓ Remember to bleed and drain the pipe system before starting the installation. Air bubbles can cause explosions by pressurizing abruptly again.
- ✓ For connecting the valve during installation, always fix the thread adapter through a wrench. **4**
- ✓ Make sure to work always within permitted limits on pressure and temperature. **5**
- ✓ The valve is opened when the handle is in longitudinal position (parallel to the line). Valve is closed when the handle is in perpendicular position (right angle to the line). Switch the handle always 90° to reach the limit for opening or closing the flow.
- ✓ Ball valves can be installed in angle, vertical and horizontal position.
- ✓ Run always a test after installation.



### Storage!!!

All our ball valves are brought through a surface treatment to improve its conservation. We recommend:

- Store in cool, dry, and high places above the ground.
- Keep away from heat sources or direct impact of the sunlight.
- Review periodically the valves whether these have signs of corrosion, cracks and/or visible damages.



### Maintenance

- The ball valves should never be manipulated or unassembled. We warn to not use any kind of sealant.
- To avoid unexpected damages, **run regularly inspections**. If during inspection or first runs following conditions are detected, system should be turned off and the product replaced:
  - ✓ Malfunction
  - ✓ Presence of leakage
  - ✓ Visible damages, cracks and or corrosion
  - ✓ Difficulties by switching handle
  - ✓ System contamination
- The maintenance period should be defined by the end user depending on the type of application and operating conditions.
- After a long storing period or a long breakdown in operating position, the torque is higher than the force on impulse.



### Warnings!!!



- ✗ The ball valves are not approved for controlling the flow constriction. Intermediate positions can cause damages on the ball seats. This leads to leakages. Flow constriction causes also an important increase of temperature. **2**
- ✗ **Do never use inappropriate tool** e.g. clamp tools, hammers, key tools. It can damage the stem and valve body. **3**
- ✗ **Do never tight or loose the extremes of the ball valve**, this leads to a torque increase and leakages.
- ✗ **When installing the valve in a circuit, do always hold it from the end ports with a hexagonal key spanner**. Holding the valve from the body or handle will loosen the torque, causing leakages.
- ✗ **Avoid contaminating the hydraulic system**. Contaminated mediums can damage internal sealing components.
- ✗ **Operating over and under the permitted working pressure and temperature limits, leads to deterioration and leakages of the ball valve.**
- ✗ In case of malfunction, ball valve must be replaced by qualified personnel. First depressurize and drain the system. If necessary, out of service.
- ✗ **Repairs and reworks can be only done by the manufacturer or qualified and authorized personnel.**
- ✗ **If our ball valves are dismantled improperly without authorization, any warranty and damage claim against the manufacturer are null and void.**
- ✗ **Any changes on design or reworks on ball valve e.g. drilling fixing holes, welding plates are strictly prohibited without previous consultation with the manufacturer. **6****
- ✗ This manual is not intended to replace any national regulation on accident prevention and local safety regulations of the operating company, which on this should be considered a priority.

**INTEVA and its distributors are not responsible for damages caused on people or machines for an improper use or incorrect maintenance of the products.**

**The product selection, installation, maintenance and use, is under end users responsibility.**

**The distributor must ensure that that all product requirements are met and must inform the end user about the product use and maintenance.**



### Elimination!!!

In compliance with the laws of each country on the disposal of industrial waste, the valves in disuse must be eliminated taking into account that all components can be recycled.

Consider that:

- Elimination and removal must be done by qualified personnel only.
- Before extraction, depressurize pipes and circuit. Ball valve must relieve pressure from its cavity as well.

V160421





# 402 SERIES

## V2RH

BSP / NPTF  
ORB/ SAE

INTEVA

Calibrated steel manufacturing.  
Available with or without mounting holes.  
Thread combination available upon request of minimum quantities.

### • Materials

Carbon Steel *EN-10277-3 / AISI 316L / AISI 303*

Seals: NBR, Viton or EPDM

Seating Ball: P.O.M (Delrin®)

Handle: ZAMAK-5

### • Working temperature (Seals)

	NBR	Viton	EPDM
	+100°C	+200°C	+150°C
	-30°C	-10°C	-40°C

- **Applications:** Designed for Oil hydraulic Applications according to European Directive 97.23.EC Special for American market

### • Equivalence

PISTER BKH  
MHA BKH  
HYDAC KHB  
DMIC DVH

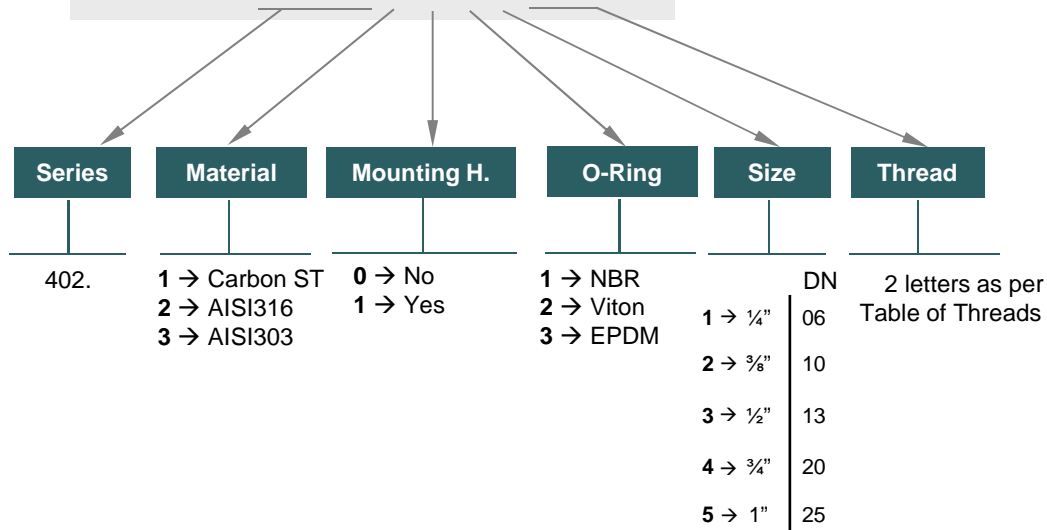
- **Sectors:** Industrial, Agricultural.



### MODEL STRUCTURE

Example;

**402.1015 AF**



**402-1**

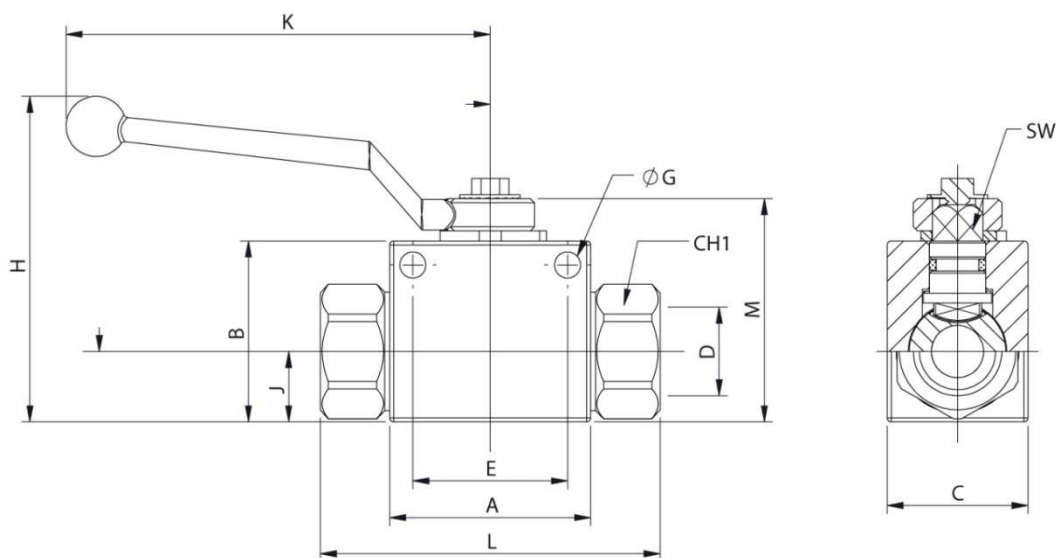





# 402 SERIES

**V2RH** BSP / NPTF  
ORB/ SAE

INTEVA



## STANDARD MODELS

DN	D	With M.H.	Without M.H.		CH1	L	A	B	M	K	H	J	C	SW	G	E
06	1/4" BSP	402.1111AB	402.1011AB	500Bar	22	72,60	40	35	45,50	105,50	71	13	26	8,90	4,50	31,50
	1/4" NPTF	402.1111BB	402.1011.BB													
	7/16"-20ORB	402.1111GA	402.1011GA													
10	3/8" BSP	402.1112AC	402.1012AC	500Bar	27	75,40	45	40	50,50	105,50	76	16	32	8,90	5,20	31,50
	3/8" NPTF	402.1112BC	402.1012BC													
	9/16" ORB	402.1112GC	402.1012GC													
13	1/2" BSP	402.1113AD	402.1013AD	500Bar	30	84,50	50	45	55,50	105,50	81	17,50	35	8,90	6,50	38,50
	1/2" NPTF	402.1113BD	402.1013BD													
	3/4" - 16ORB	402.1113GF	402.1013GF													
20	3/4" BSP	402.1114AE	402.1014AE	400Bar	41	93,40	60	58	73	159,50	108	23	50	13,90	6,50	48,50
	3/4" NPTF	402.1114BE	402.1014BE													
	1 1/16"-12ORB	402.1114GK	402.1014GK													
25	1" BSP	402.1115AF	402.1015AF	350Bar	46	114,50	65	65	80	159,50	115	27,50	57	13,90	8,50	50,50
	1" NPTF	402.1115BF	402.1015BF		46	114,50										
	1 1/4" BSP	402.1115AG	402.1015AG		50	136,50										
	1 1/4" NPTF	402.1115BG	402.1015BG		50	136,50										
	1 1/2" BSP	402.1115AH	402.1015AH		55	146,50										
	1 1/2" NPTF	402.1115BH	402.1015BH		55	146,50										
	1 5/16"-12ORB	402.1115GO	402.1015GO		46	114,50										

**402-2**







# 402 SERIES

## V2RH

Mining  
Industry

Special threads for mining industry  
Calibrated steel manufacturing.  
Available with or without mounting holes.

### • Materials

Carbon Steel *EN-10277-3*

Seals: NBR, Viton or EPDM

Seating Ball: P.O.M (Delrin®)

Handle: ZAMAK-5

### • Working temperature (Seals)

	NBR	Viton	EPDM
	+100°C	+200°C	+150°C
	-30°C	-10°C	-40°C

- **Applications:** Designed for Oil hydraulic Applications according to European Directive 97.23.EC  
Special for American market

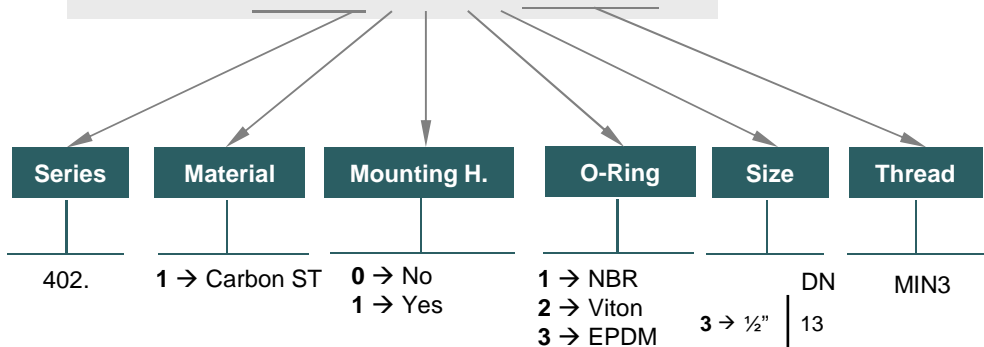
### • Sectors: Mining industry



### MODEL STRUCTURE

Example;

## 402.1013 MIN3



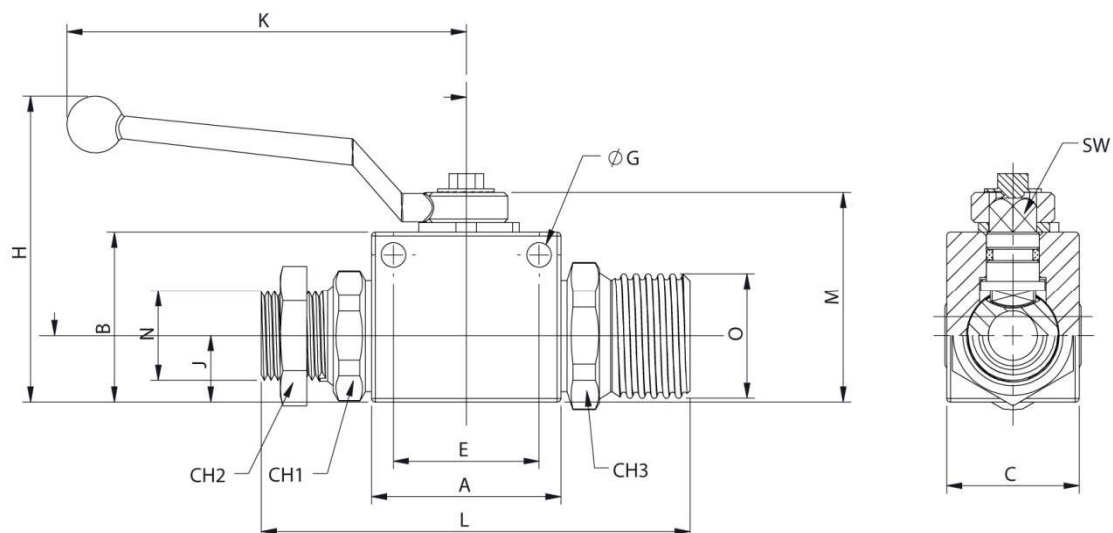
## 402-3




# 402 SERIES

## V2RH

Mining  
Industry



### STANDARD MODELS

DN	O	N	With M.H.	Without M.H.		CH1	L	A	B	M	K	H	J	C	SW	G	E
13	Rd 33x3,18	$\frac{3}{4}$ " (Special Mining industry)	402.1013MIN3	402.1113MIN3	500Bar	80	140	100	110	129	214	191	52	100	16,98	*	*

402-4





# 402 SERIES

## V2MT DIN 2353

Calibrated steel manufacturing.  
Available with or without mounting holes.  
Thread combination available upon request of minimum quantities.

### • Materials

Carbon Steel *EN-10277-3 / AISI 316L*

Seals: NBR, Viton or EPDM

Seating Ball: P.O.M (Delrin®)

Handle: ZAMAK-5

• **Applications:** Designed for Oil hydraulic Applications according to European Directive 97.23.EC  
Special for American market

### • Equivalence

PISTER BKH

MHA BKH

HYDAC KHB

### • Working temperature (Seals)

	NBR	Viton	EPDM
	+100°C	+200°C	+150°C
	-30°C	-10°C	-40°C

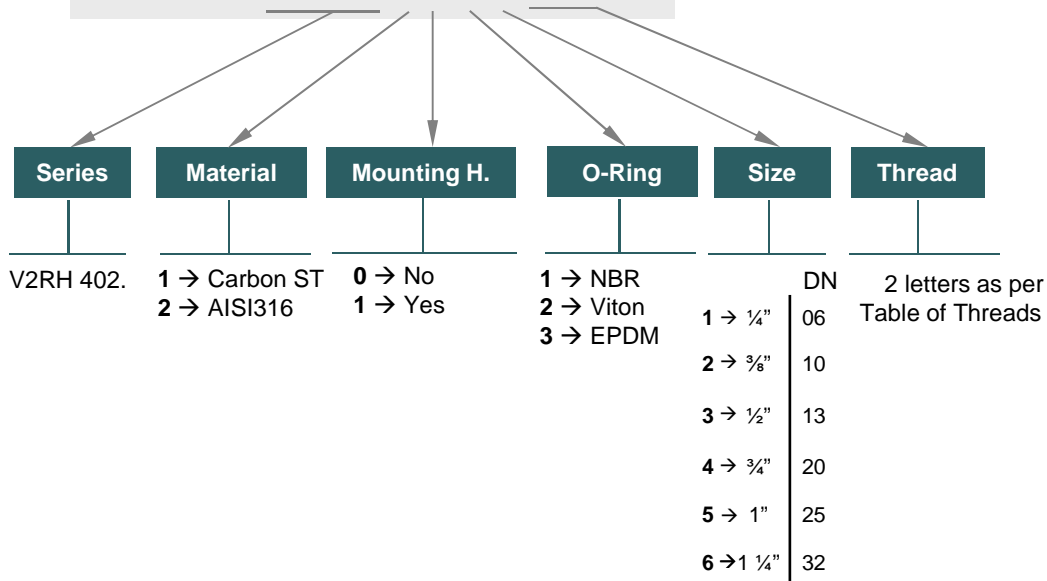
• **Sectors:** Industrial, Agricultural.



## MODEL STRUCTURE

Example;

# 402.1113 JG



## 402-5

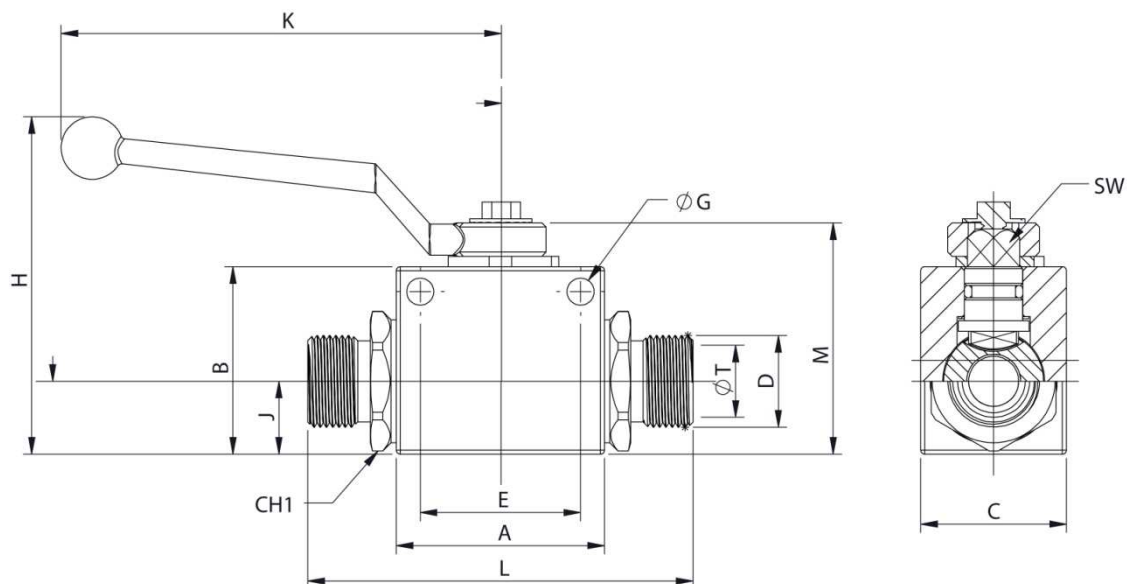







# 402 SERIES

## V2MT DIN 2353



### STANDARD MODELS

DN	D	ØT	With M.H.	Without M.H.		CH1	L	A	B	M	K	H	J	C	SW	Ø G	E
06	M12x1,5	6L	402.1111JB	402.1011JB	500Bar	22	<u>78,60</u>										
	M14x1,5	8L	402.1111JC	402.1011JC			40	35	45,50	105,50	71	13	26	8,90	4,50	31,50	
	M16x1,5	8S	402.1111KD	402.1011KD													
	M18x1,5	10S	402.1111KE	402.1011KE													
M16x1,5	10L	402.1112JD	402.1012JD	<u>77,40</u>													
10	M18x1,5	12L	402.1112JE	402.1012JE		27	45	35	50,50	105,50	76	16	32	8,90	5,20	31,50	
	M22x1,5	15L	402.1112JG	402.1012JG													
	M20x1,5	12S	402.1112KF	402.1012KF													
	M22x1,5	14S	402.1112KG	402.1012KG													
13	M22x1,5	15L	402.1113JG	402.1013JG		30	92,50	50	45	55,50	105,50	81	17,50	35	8,90	6,50	38,50
	M26x1,5	18L	402.1113JI	402.1013JI													
	M24x1,5	16S	402.1113KH	402.1013KH													
	M30x2	20S	402.1113KJ	402.1013KJ													
20	M30x2	22L	402.1114JJ	402.1014JJ	400Bar	41	<u>108,40</u>										
	M30x2	20S	402.1114KJ	402.1014KJ			60	58	73	159,50	108	23	50	13,90	6,50	48,50	
	M36x2	25S	402.1114KK	402.1014KK													<u>114,40</u>
25	M36x2	28L	402.1115JK	402.1015JK	350Bar	46	<u>113,50</u>										
	M42x2	30S	402.1115KL	402.1015KL			65	65	80	159,50	115	27,50	57	13,90	8,50	50,50	
<u>128,50</u>																	

402-6





# 412 SERIES

## V2RD

BSP / NPTF / SAE / ORB  
STAINLESS STEEL

Calibrated steel manufacturing.

Thread combination available upon request of minimum quantities.

### • Materials

Carbon Steel *EN-10277-3*, Stainless Steel *AISI 316L*,

Stainless Steel *AISI 303*

Seals: NBR, Viton or EPDM

Seating Ball: P.O.M (Delrin®)

Handle: ZAMAK-5

### • Working temperature (Seals)

	NBR	Viton	EPDM
	+100°C	+200°C	+150°C
	-30°C	-10°C	-40°C

### • Sectors: Industrial, Agricultural.



- **Applications:** Designed for Oil hydraulic Applications according to European Directive 97.23.EC

### • Equivalence

PISTER BKH

MHA BKH

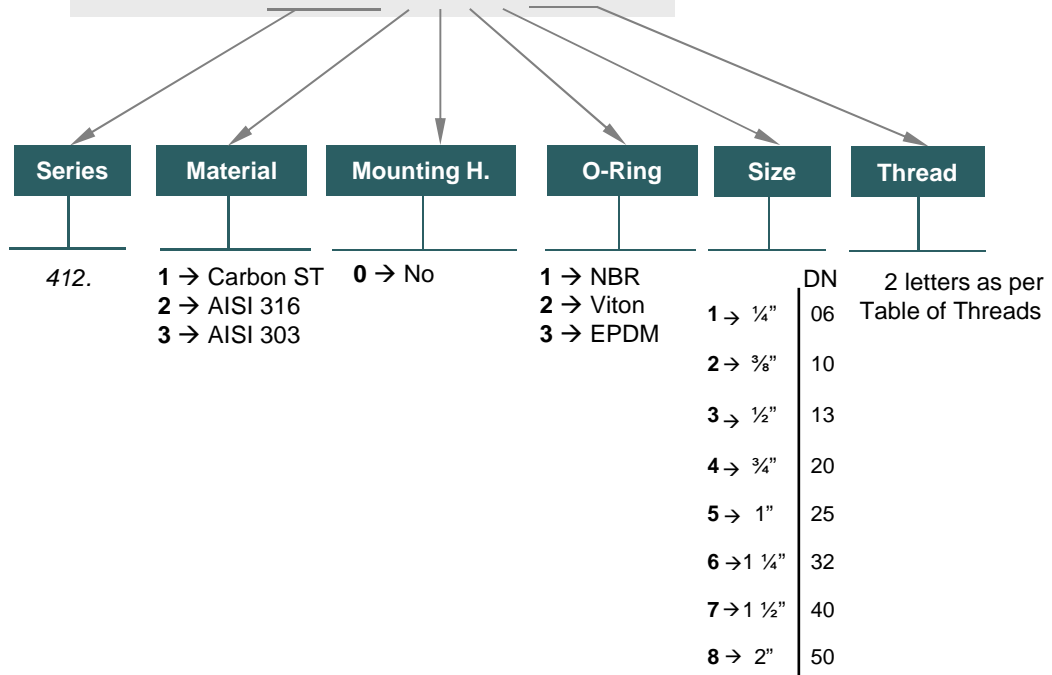
HYDAC BKH

DMIC BVH

## MODEL STRUCTURE

Example;

# 412.2014 GK



## 412-1

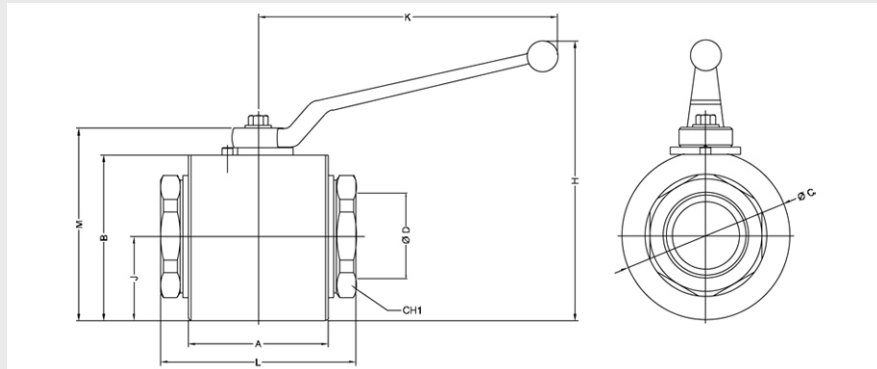




# 412 SERIES

## V2RD

BSP / NPTF / SAE / ORB  
STAINLESS STEEL



DN	CH1	L	A	M	K	H	J	B	ØC
06	22	74,50	40	45,50	105,50	71	13	35	38
10	27		45	50,50		76	16	40	45
13	30		84,50	50		55,50	81	17,50	45
20	41	93,40	60	73	159,50	108	50	59,5	65
25	46	114,50	65	80		115	27,50	65	70
	50	136,50							
	55	146,50							
32	55	110	80	100		135	41	85,75	90
40	65	120	85	114	214	176	44,50	105	110
50	80	140	100	129		191	52	115	120

### STANDARD MODELS (AISI 316)

DN	Ø D	REF.	
06	1/4" BSP	412.2021AB	500Bar
	1/4" NPTF	412.2021.BB	
	7/16"-20ORB	412.2021GA	
10	3/8" BSP	412.2022AC	500Bar
	3/8" NPTF	412.2022BC	
	9/16"-18ORB	412.2022GC	
13	1/2" BSP	412.2023AD	500Bar
	1/2" NPTF	412.2023BD	
	3/4" - 16ORB	412.2023GF	
20	3/4" BSP	412.2024AE	400Bar
	3/4" NPTF	412.2024BE	
	1 1/16"-12ORB	412.2024GK	
	1" BSP	412.2025AF	
	1" NPTF	412.2025BF	
25	1 1/4" BSP	412.2025AG	350Bar
	1 1/4" NPTF	412.2025BG	
	1 1/2" BSP	412.2025AH	
	1 1/2" NPTF	412.2025BH	
	1 5/16"-12ORB	412.2025GO	
32	1 1/4" BSP	412.2026AG	320Bar
	1 1/4" NPTF	412.2026BG	
	1 5/8"-12ORB	412.2026GT	
40	1 1/2" BSP	412.2027AH	320Bar
	1 1/2" NPTF	412.2027BH	
50	2" BSP	412.2028AI	320Bar
	2" NPTF	412.2028BI	

Safety pressure factor 1:4

### STANDARD MODELS (AISI 316)

DN	D	ØT	REF.	
06	M12x1,5	6L	412.2021JB	500Bar
	M14x1,5	8L	412.2021JC	
	M16x1,5	8S	412.2021KD	
	M18x1,5	10S	412.2021KE	
10	M16x1,5	10L	412.2022JD	500Bar
	M18x1,5	12L	412.2022JE	
	M22x1,5	15L	412.2022JG	
	M20x1,5	12S	412.2022KF	
	M22x1,5	14S	412.2022KG	
13	M22x1,5	15L	412.2023JG	500Bar
	M26x1,5	18L	412.2023JI	
	M24x1,5	16S	412.2023KH	
	M30x2	20S	412.2023KJ	
	M30x2	22L	412.2024JJ	
20	M30x2	20S	412.2024KJ	400Bar
	M36x2	25S	412.2024KK	
	M36x2	28L	412.2025JK	
25	M42x2	30S	412.2025KL	350Bar
	M45x2	35L	412.2026JM	
32	M52x2	38S	412.2026KN	320Bar

412-2



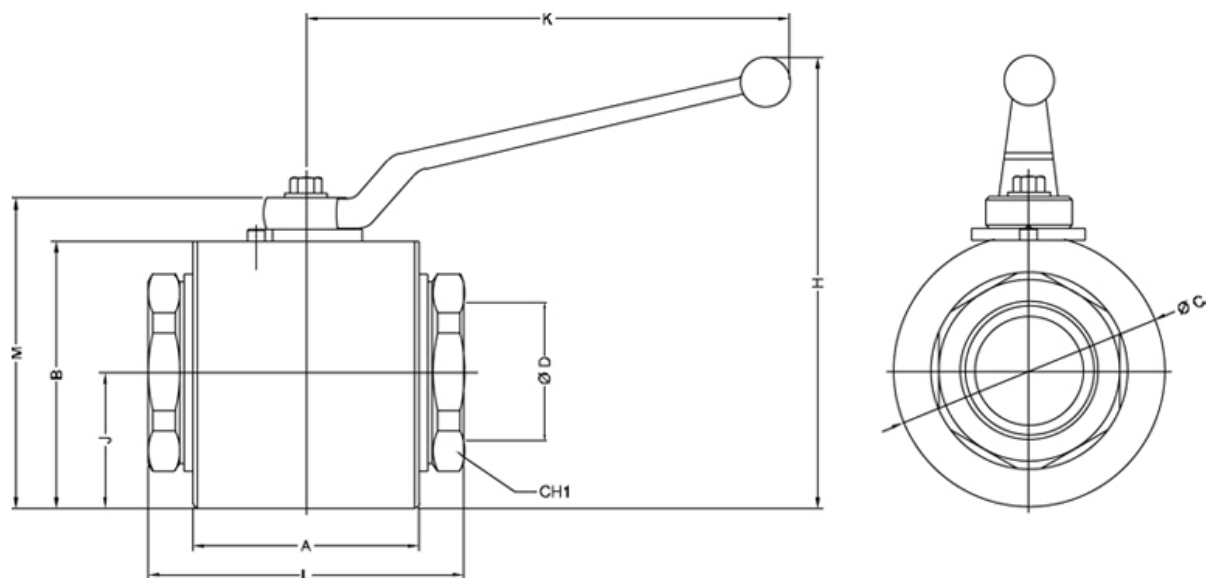




# 412 SERIES

## V2RD

BSP / NPTF / SAE / ORB  
CARBON STEEL



DN	CH1	L	A	M	K	H	J	B	ØC
32	55	110	80	100	159,50	135	41	85,75	90
40	65	120	85	114	214	176	44,50	105	110
50	80	140	100	129		191	52	115	120

### STANDARD MODELS (CARBON STEEL)

DN	D	ØT	REF.	
32	M45x2	35L	412.1016JM	320Bar
	M52x2	38S	412.1016KN	

### STANDARD MODELS (CARBON STEEL)

DN	Ø D	REF.	
32	1 1/4" BSP	412.1016AG	320Bar
	1 1/4" NPTF	412.1016BG	
	1 5/8"-12ORB	412.1016GT	
40	1 1/2" BSP	412.1017AH	320Bar
	1 1/2" NPTF	412.1017BH	
50	2" BSP	412.1018AI	320Bar
	2" NPTF	412.1018BI	

412-3





# 432 SERIES

## V3RH

BSP / NPTF  
ORB/ SAE

Calibrated steel manufacturing.  
Available with or without mounting holes.  
Thread combination available upon request of minimum quantities.

### • Materials

Carbon Steel *EN-10277-3*

Seals: NBR, Viton or EPDM

Seating Ball: P.O.M (Delrin®)

Handle: ZAMAK-5

• **Applications:** Designed for Oil hydraulic Applications according to European Directive 97.23.EC  
Special for American market


### • Equivalence

PISTER BK3

MHA BK3

HYDAC KHB3K

### • Working temperature (Seals)

	NBR	Viton	EPDM
	+100°C -30°C	+200°C -10°C	+150°C -40°C

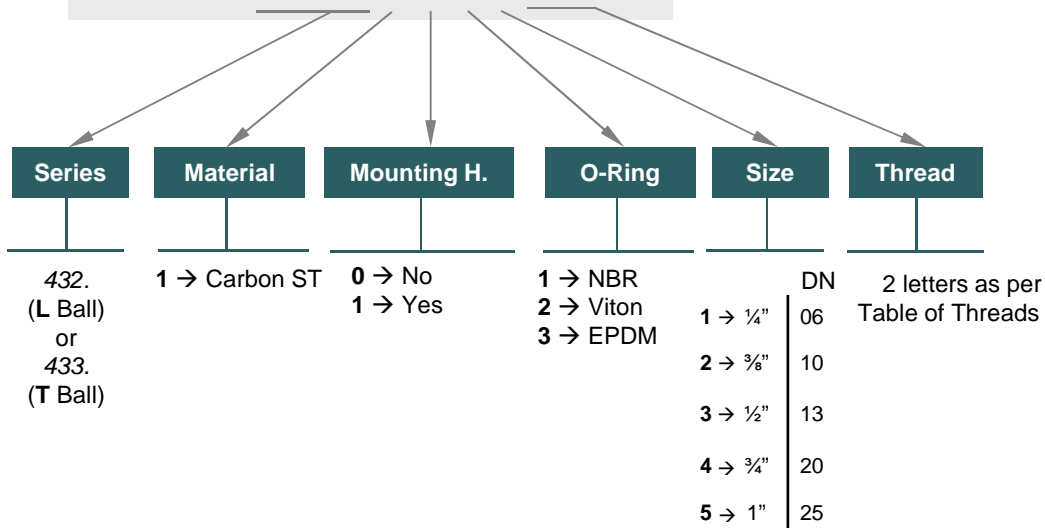
• **Sectors:** Industrial, Agricultural.



## MODEL STRUCTURE

Example;

# 432.1113 AD



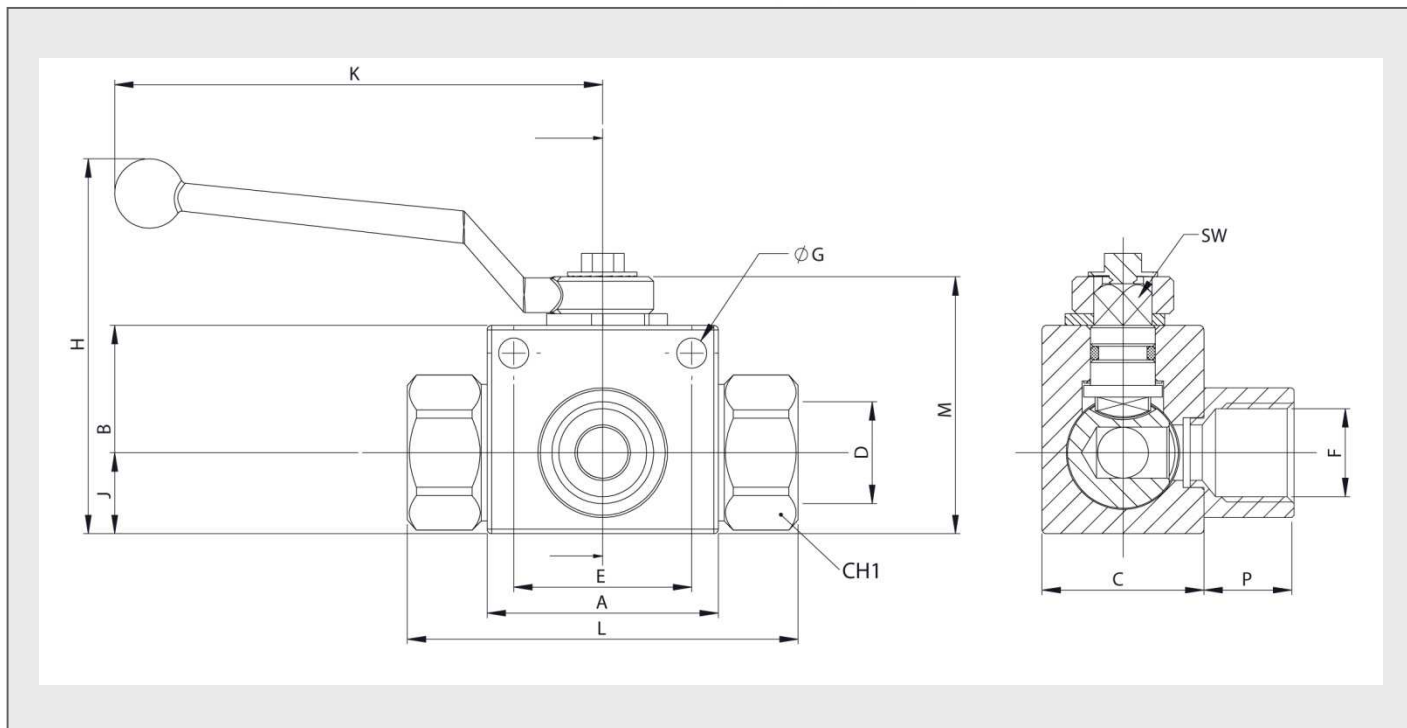
## 432-1





# 432 SERIES

**V3RH** BSP / NPTF  
ORB/ SAE



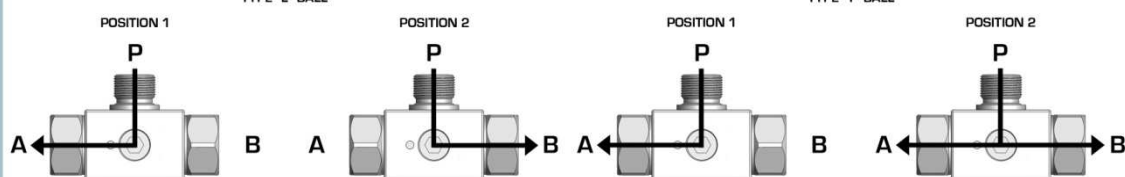
(A dimension)

## STANDARD MODELS

DN	D / F	With M.H.	Without M.H.		CH1	L	A	B	M	K	H	J	C	SW	Ø G	E	P
06	1/4" BSP	432.1111AB	432.1011AB	500Bar	22	72,60	40	35	45,50	105,50	71	13	26	8,90	4,50	31,50	13
	1/4" NPTF	432.1111BB	432.1011BB														14
	7/16"-20ORB	432.1111GA	432.1011GA														15
10	3/8" BSP	432.1112AC	432.1012AC	500Bar	27	75,40	45	40	50,50	105,50	76	16	32	8,90	5,20	31,50	16
	3/8" NPTF	432.1112BC	432.1012BC														16
	9/16" ORB	432.1112GC	432.1012GC														16
13	1/2" BSP	432.1113AD	432.1013AD	500Bar	30	84,50	50	45	55,50	105,50	81	17,50	35	8,90	6,50	38,50	19,50
	1/2" NPTF	432.1113BD	432.1013BD														19,50
	3/4" - 16ORB	432.1113GF	432.1013GF														19
20	3/4" BSP	432.1114AE	432.1014AE	400Bar	41	93,40	60	60	73	159,50	108	23	50	13,90	6,50	48,50	21
	3/4" NPTF	432.1114BE	432.1014BE														21
	1 1/16"-12ORB	432.1114GK	432.1014GK														21
25	1" BSP	432.1115AF	432.1015AF	350Bar	46	114,50	65	65	80	159,50	115	27,50	57	13,90	8,50	50,50	25
	1" NPTF	432.1115BF	432.1015BF														25
	1 1/4" BSP	432.1115AG	432.1015AG														31
	1 1/4" NPTF	432.1115BG	432.1015BG														25
	1 1/2" BSP	432.1115AH	432.1015AH														32
	1 1/2" NPTF	432.1115BH	432.1015BH														25
	1 5/16"-12ORB	432.1115GO	432.1015GO														25

TYPE "L" BALL

TYPE "T" BALL



**432-2**







# 432 SERIES

## V3MT DIN 2353

Calibrated steel manufacturing.  
Available with or without mounting holes.  
Thread combination available upon request of minimum quantities.

### • Materials

Carbon Steel *EN-10277-3*

Seals: NBR, Viton or EPDM

Seating Ball: P.O.M (Delrin®)

Handle: ZAMAK-5

### • Working temperature (Seals)

	NBR	Viton	EPDM
	+100°C	+200°C	+150°C
	-30°C	-10°C	-40°C

- **Applications:** Designed for Oil hydraulic Applications according to European Directive 97.23.EC  
Special for American market

### • Equivalence

PISTER BK3  
MHA BK3  
HYDAC KHB3k

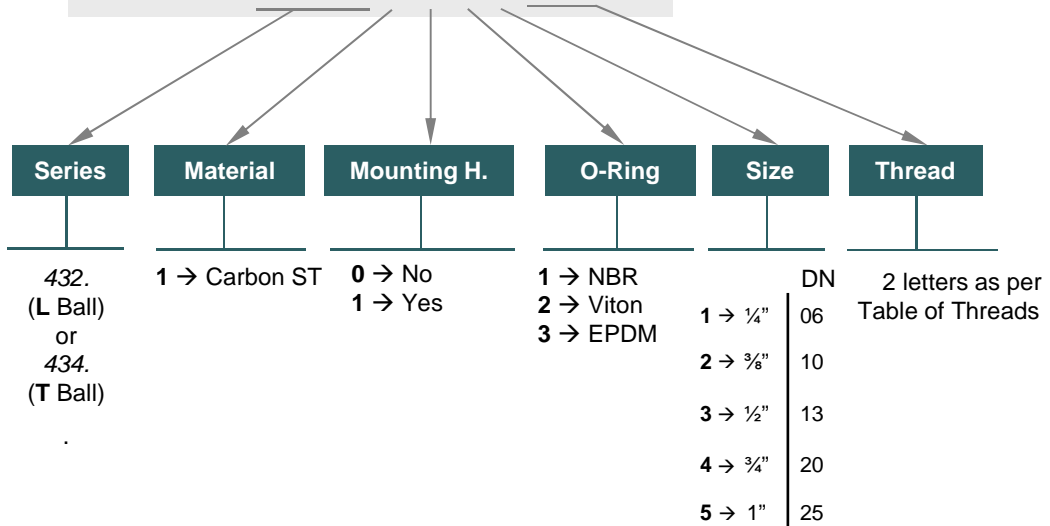
- **Sectors:** Industrial, Agricultural.



## MODEL STRUCTURE

Example;

# 432.1013 KD



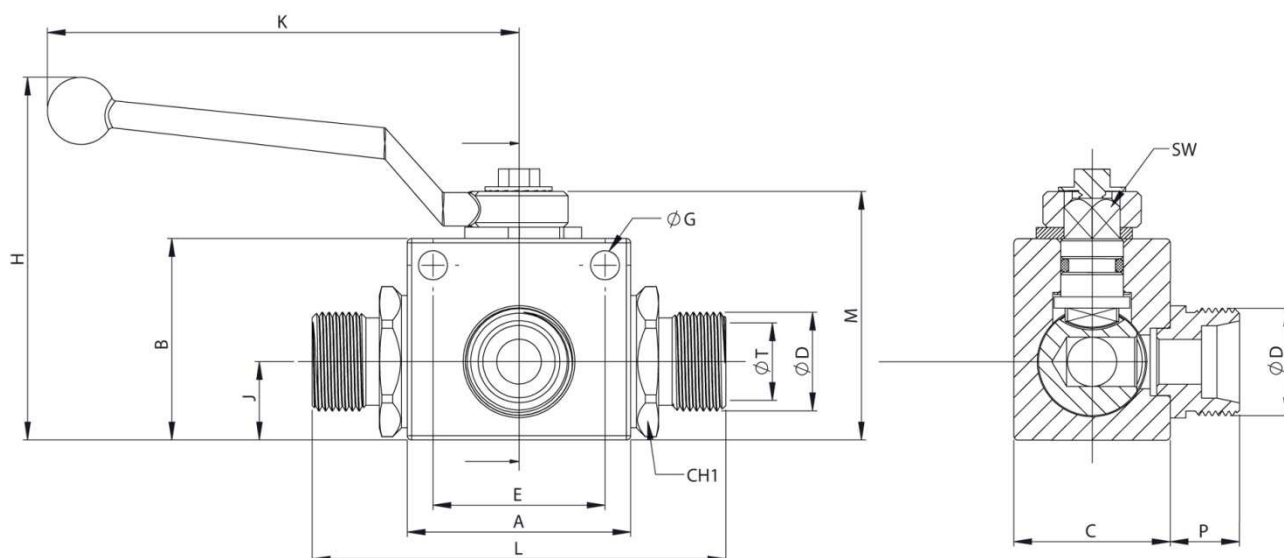
## 432-3





# 432 SERIES

## V3MT DIN 2353

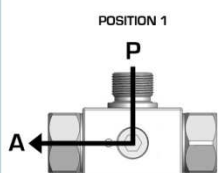


(A dimension)

### STANDARD MODELS

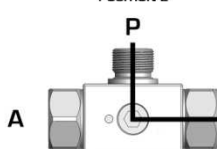
DN	D	ØT	With M.H.	Without M.H.	CH1	L	A	B	M	K	H	J	C	SW	ØG	E	P
06	M12x1,5	6L	432.1111JB	432.1011JB	22	78,60											
	M14x1,5	8L	432.1111JC	432.1011JC		79,60											13
	M16x1,5	10L	432.1111JD	432.1011JD		78,60	40	35	45,50	105,50	71	13	26	8,90	4,50	31,50	
	M16x1,5	8S	432.1111KD	432.1011KD		79,60											14
	M18x1,5	10S	432.1111KE	432.1011KE		79,60											14
10	M16x1,5	10L	432.1112JD	432.1012JD	27	77,40											
	M18x1,5	12L	432.1112JE	432.1012JE													15
	M22x1,5	15L	432.1112JG	432.1012JG		79,40	45	40	50,50	105,50	76	16	32	8,90	5,20	31,50	
	M20x1,5	12S	432.1112KF	432.1012KF													24
	M22x1,5	14S	432.1112KG	432.1012KG													
13	M22x1,5	15L	432.1113JG	432.1013JG	30												
	M26x1,5	18L	432.1113JI	432.1013JI		92,50	50	45	55,50	105,50	81	17,50	35	8,90	6,50	38,50	15,50
	M24x1,5	16S	432.1113KH	432.1013KH													
	M30x2	20S	432.1113KJ	432.1013KJ		98,50											
	M30x2	22L	432.1114JJ	432.1014JJ		108,40											
20	M30x2	20S	432.1114KJ	432.1014KJ	41	114,40	60	58	73	159,50	108	23	50	13,90	6,50	48,50	17
	M36x2	25S	432.1114KK	432.1014KK		114,40											
	M36x2	28L	432.1115JK	432.1015JK													
25	M42x2	30S	432.1115KL	432.1015KL	46	128,50	65	65	80	159,50	115	27,50	57	13,90	8,50	50,50	25

TYPE "L" BALL



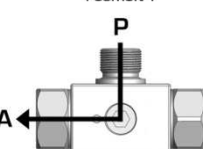
B

POSITION 2



B

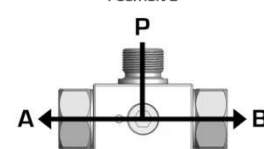
POSITION 1



B

TYPE "T" BALL

POSITION 2



432-4





# 433 SERIES

## V3RH

BSP  
F-M-F



Calibrated steel manufacturing.  
Available with or without mounting holes.  
Thread combination available upon request of minimum quantities.

### • Materials


Carbon Steel *EN-10277-3*

Seals: NBR, Viton or EPDM

Seating Ball: P.O.M (Delrin®)

Handle: ZAMAK-5

### • Working temperature (Seals)

	NBR	Viton	EPDM
	+100°C	+200°C	+150°C
	-30°C	-10°C	-40°C

### • Sectors: Industrial, Agricultural.

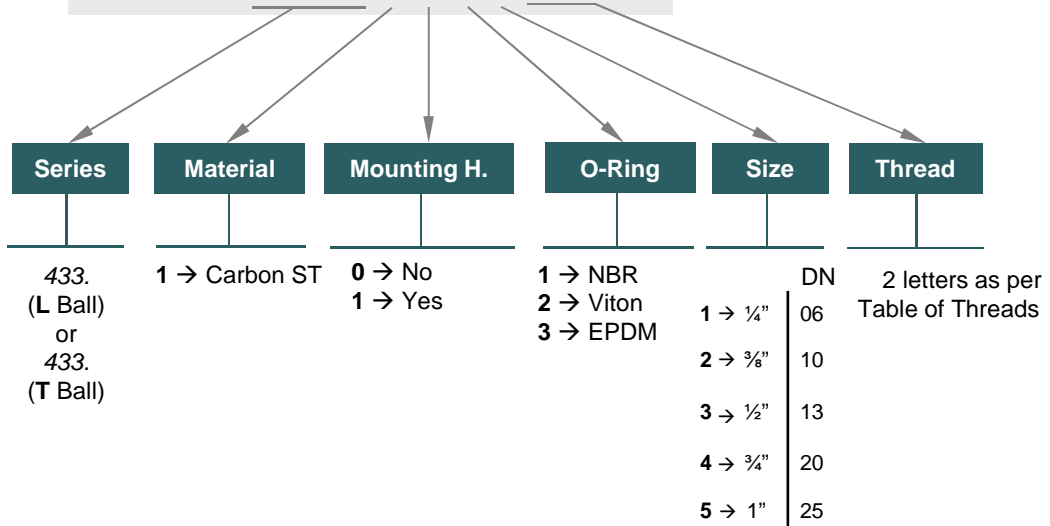


- **Applications:** Designed for Oil hydraulic Applications according to European Directive 97.23.EC  
Special for American market

## MODEL STRUCTURE

Example;

# 433.1115 AG



## 433-1

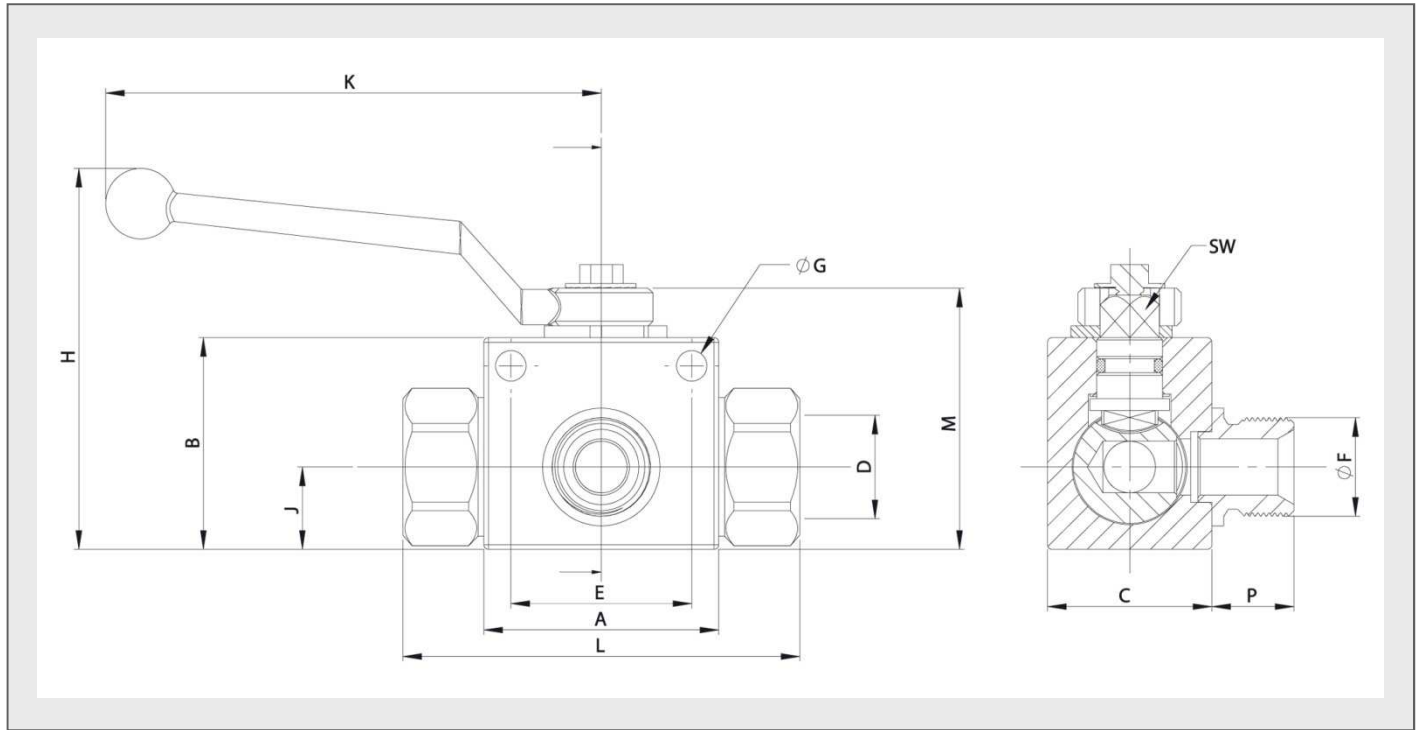




# 433 SERIES

## V3RH

BSP  
F-M-F



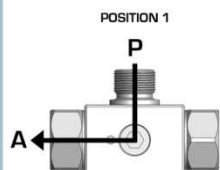
(A dimension)

### STANDARD MODELS

DN	D / F	With M.H.	Without M.H.		CH1	L	A	B	M	K	H	J	C	SW	G	E	P
06	¼" BSP	433.1111AB	433.1011AB	500Bar	22	72,60	40	35	45,50	105,50	71	13	26	8,90	4,50	31,50	13
10	⅜" BSP	433.1112AC	433.1012AC		27	75,40	45	40	50,50	105,50	76	16	32	8,90	5,20	31,50	15
13	½" BSP	433.1113AB	433.1013AB		30	84,50	50	45	55,50	105,50	81	17,50	35	8,90	6,50	38,50	17,50
20	¾" BSP	433.1114AE	433.1014AE	400Bar	41	93,40	60	60	73	159,50	108	23	50	13,90	6,50	48,50	19
	1" BSP	433.1115AF	433.1015AF		46	114,50											25
25	1 ¼" BSP	433.1115AG	433.1015AG	350Bar	50	136,50	65	65	80	159,50	115	27,50	57	13,90	8,50	50,50	28
	1 ½" BSP	433.1115AH	433.1015AH		55	146,50											

TYPE "L" BALL

POSITION 2



B



A



B

TYPE "T" BALL

POSITION 1



A

POSITION 2

## 433-2

INTEVA S.A. Reserves the right to make modifications in its products without prior notice







# 452 SERIES

## V2CR

BSP / NPTF SAE /  
ORB DIN2353

INTEVA

Calibrated steel manufacturing.  
With bulkhead thread and nut to assembly in panels  
Thread combination available upon request of minimum quantities.

### • Materials

Carbon Steel *EN-10277-3*

Seals: NBR, Viton or EPDM

Seating Ball: P.O.M (Delrin®)

Handle: ZAMAK-5

• **Applications:** Designed for Oil hydraulic Applications according to European Directive 97.23.EC  
Special for American market

### • Equivalence

INTEVA STANDARD

### • Working temperature (Seals)

	NBR	Viton	EPDM
	+100°C	+200°C	+150°C
	-30°C	-10°C	-40°C

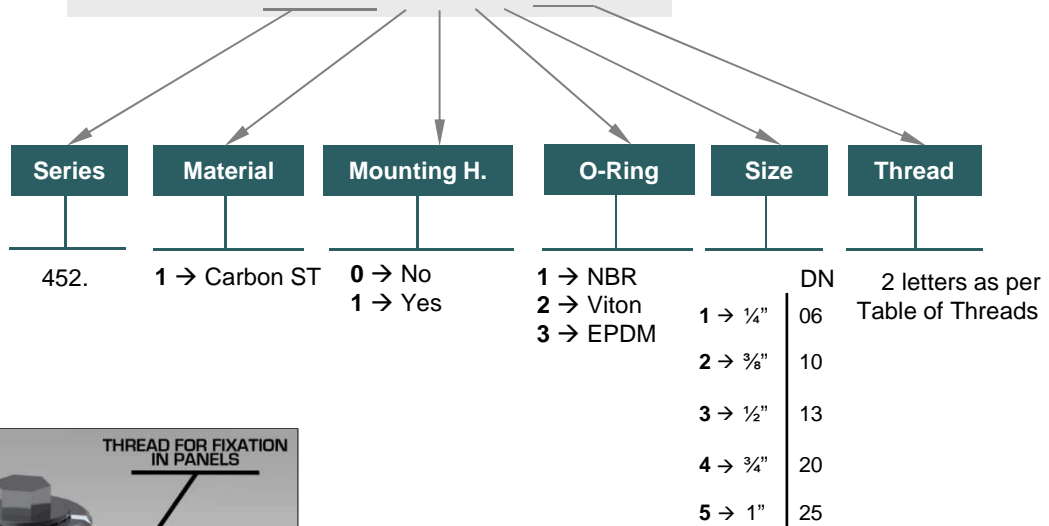
• **Sectors:** Industrial, Agricultural.



### MODEL STRUCTURE

Example;

**452.1112 KF**



**452-1**

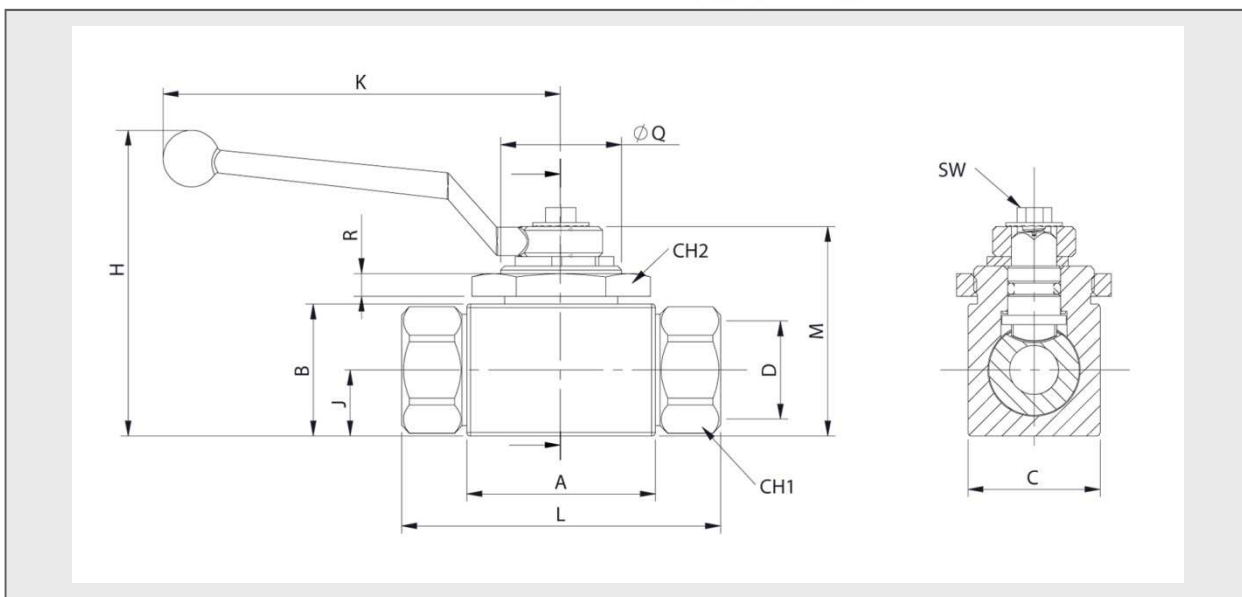


# 452 SERIES

## V2CR

BSP / NPTF SAE /  
ORB DIN2353

INTEVA



### STANDARD MODELS

DN	D	REF.		CH1	CH2	L	A	B	M	K	H	J	C	SW	R	ØQ
06	1/4" BSP	452.1011AB	500Bar	22	30											
	1/4" NPTF	452.1011BB				72,60										
	7/16" -12ORB	452.1011GA														
	M12x1,5 6L	452.1011JB				78,60	40	35	45,50	105,50	71	13	26	8,90	6	M32x1,5
	M14x1,5 8L	452.1011JC														
	M16x1,5 10L	452.1011JD				79,60										
10	M16x1,5 8S	452.1011KD														
	3/8" BSP	452.1012AC		27	41											
	3/8" NPTF	452.1012BC				75,40										
	9/16" -18ORB	452.1012GC														
	M16x1,5 10L	452.1012JD				77,40	45	40	50,50	105,50	76	16	32	8,90	6	M32x1,5
	M18x1,5 12L	452.1012JE														
13	M22x1,5 15L	452.1012JG				79,40										
	M20x1,5 12S	452.1012KF														
	M22x1,5 14S	452.1012KG														
	1/2" BSP	452.1013AD		30	41											
	1/2" NPTF	452.1013BD				84,50										
	3/4" -16ORB	452.1013GF														
20	M22x1,5 15L	452.1013JG					50	45	55,50	105,50	81	17,50	35	8,90	6	M32x1,5
	M26x1,5 18L	452.1013JI				92,50										
	M24x1,5 16S	452.1013KH														
	M30x2 20S	452.1013KJ														
25	3/4" BSP	452.1014AE	400Bar	41	50											
	3/4" NPTF	452.1014BE				93,40										
	1 1/16"-12ORB	452.1014GK					60	58	73	159,50	108	23	50	13,90	6	M45x1,5
	M30x2 22L	452.1014JJ				108,40										
25	M30x2 20S	452.1014KJ														
	M36x2 25S	452.1014KK				114,40										
	1" BSP	452.1015AF	350Bar	46	50	114,50	65	65	80	159,50	115	27,50	57	13,90	6	M45x1,5
	1" NPTF	452.1015BF														
	1 2/16" -12ORB	452.1015GO														
	M36x2 28L	452.1015JK				113,50										

452-2



# 453 SERIES

## V3CR

BSP  
F-M-F



Calibrated steel manufacturing.  
Available with and without mounting holes.  
Thread combination available upon request of minimum quantities.

### • Materials

Carbon Steel *EN-10277-3*

Seals: NBR, Viton or EPDM

Seating Ball: P.O.M (Delrin®)

Handle: ZAMAK-5

### • Working temperature (Seals)

	NBR	Viton	EPDM
	+100°C	+200°C	+150°C
	-30°C	-10°C	-40°C

### • Sectors: Industrial, Agricultural.

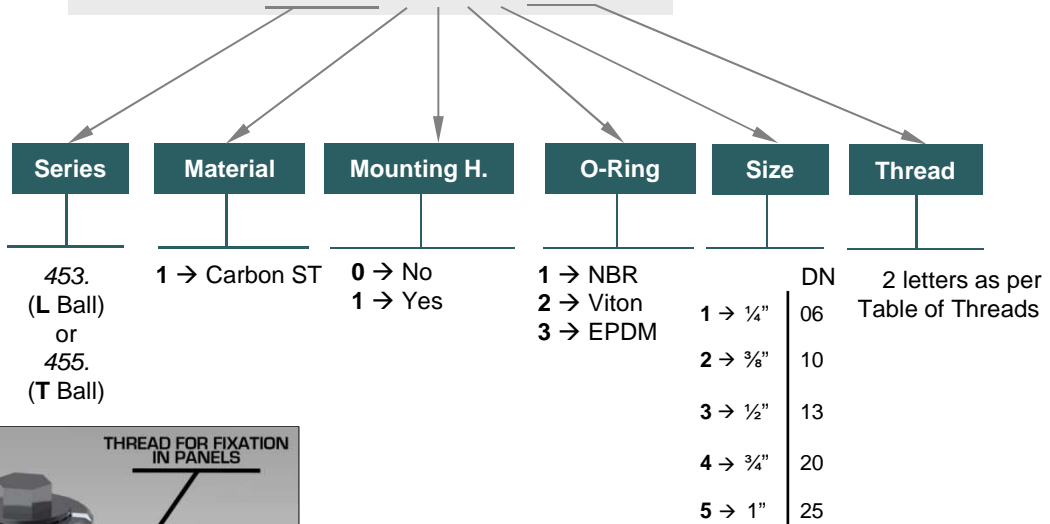


- **Applications:** Designed for Oil hydraulic Applications according to European Directive 97.23.EC Special for American market

## MODEL STRUCTURE

Example;

# 453.1014 AE



## 453-1

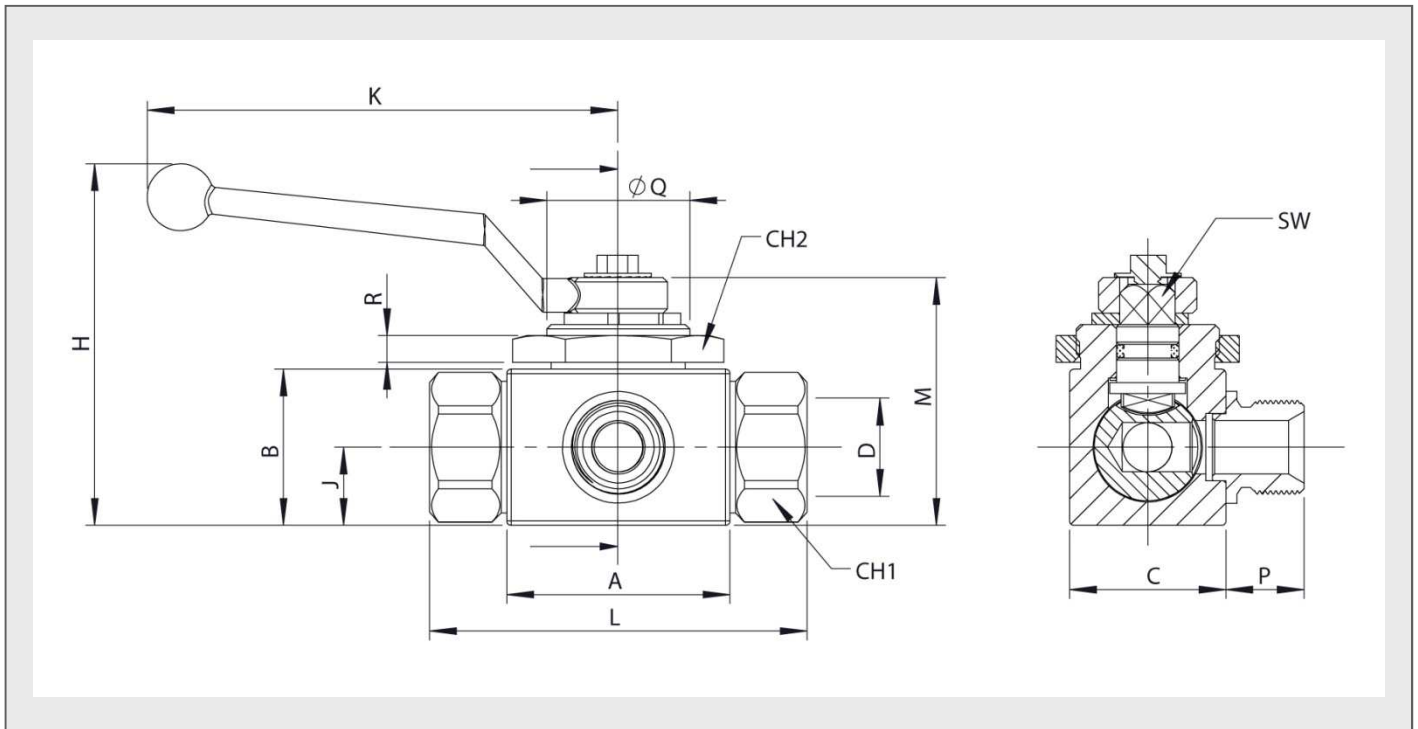




# 453 SERIES

## V3CR

BSP  
F-M-F

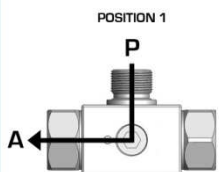


### STANDARD MODELS

DN	D	REF.		CH1	CH2	L	A	B	M	K	H	J	C	SW	R	Q	P
06	1/4" BSP	453.1011AB		22	30	72,60	40	35	45,50		71	13	26			M32x1,5	13
10	3/8" BSP	453.1012AC	500Bar	27	41	75,40	45	40	50,50	105,50	76	16	32	8,90		M32x1,5	15
13	1/2" BSP	453.1013AD		30		84,50	50	45	55,50		81	17,50	35		6	M32x1,5	17,5
20	3/4" BSP	453.1014AE	400Bar	41	50	93,40	60	58	73	159,50	108	23	50	13,90		M45x1,5	19
25	1" BSP	453.1015AF	350Bar	46	50	114,50	65	65	80		115	27,50	57			M45x1,5	25

TYPE "L" BALL

POSITION 2



B



A

POSITION 1



B

TYPE "T" BALL

POSITION 2



A

## 453-2







# 470 SERIES EK2

BSP  
DIN2353

Calibrated steel manufacturing.  
Thread combination available upon request of minimum quantities.


## • Materials

Carbon Steel *EN-10277-3*

Seals: NBR, Viton or EPDM

Handle: ZAMAK-5

## • Working temperature (Seals)

	NBR	Viton	EPDM
	+100°C -30°C	+200°C -10°C	+150°C -40°C

## • Sectors: Industrial, Agricultural.

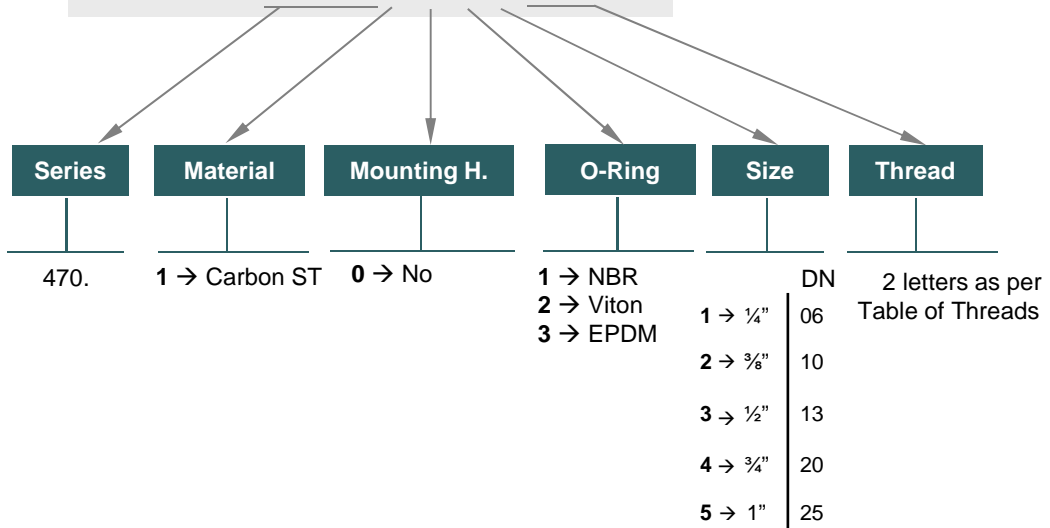


- **Applications:** Designed for Oil hydraulic Applications according to European Directive 97.23.EC Special for American market

## MODEL STRUCTURE

Example;

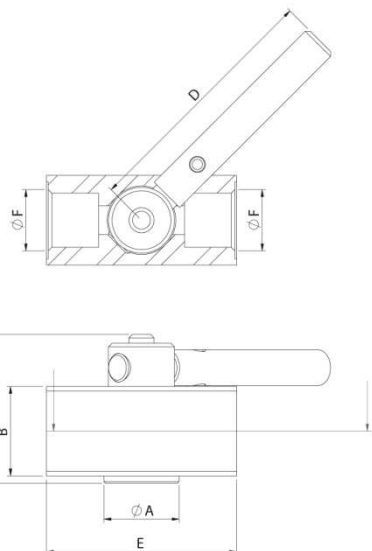
**470.1014 AE**




**470-1**

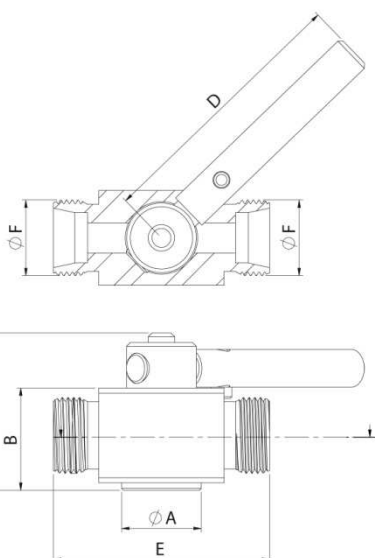
# 470 SERIES EK2

BSP  
DIN2353




## STANDARD MODEL

DN	Ø F	REF.		Ø A	B	C	D	E
10	3/8" BSP	470.1012AC	250Bar	36	56	26,85	112	53



## STANDARD MODEL

DN	Ø F	REF.		Ø A	B	C	D	E
10	M20x1,5	470.1012KFA	250Bar	36	56	26,85	112	53

470-2



# 471 SERIES EK3

BSP

Steel manufacturing.

Designed without inner ball. Spin movement allows opening and closing the valve.  
BSP Threads, others available upon request.

## • Materials

Carbon Steel *EN-10277-3*

Seals: NBR, Viton or EPDM

Handle: ZAMAK-5

## • Working temperature (Seals)

	NBR	Viton	EPDM
	+100°C	+200°C	+150°C
	-30°C	-10°C	-40°C

## • Sectors: Industrial, Agricultural.

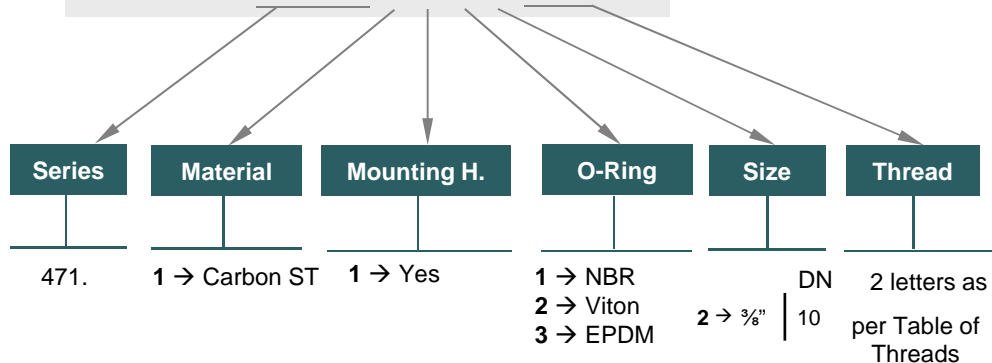


- **Applications:** Designed for Oil hydraulic Applications according to European Directive 97.23.EC  
Special for American market

## MODEL STRUCTURE

Example;

**471.1114 AE**



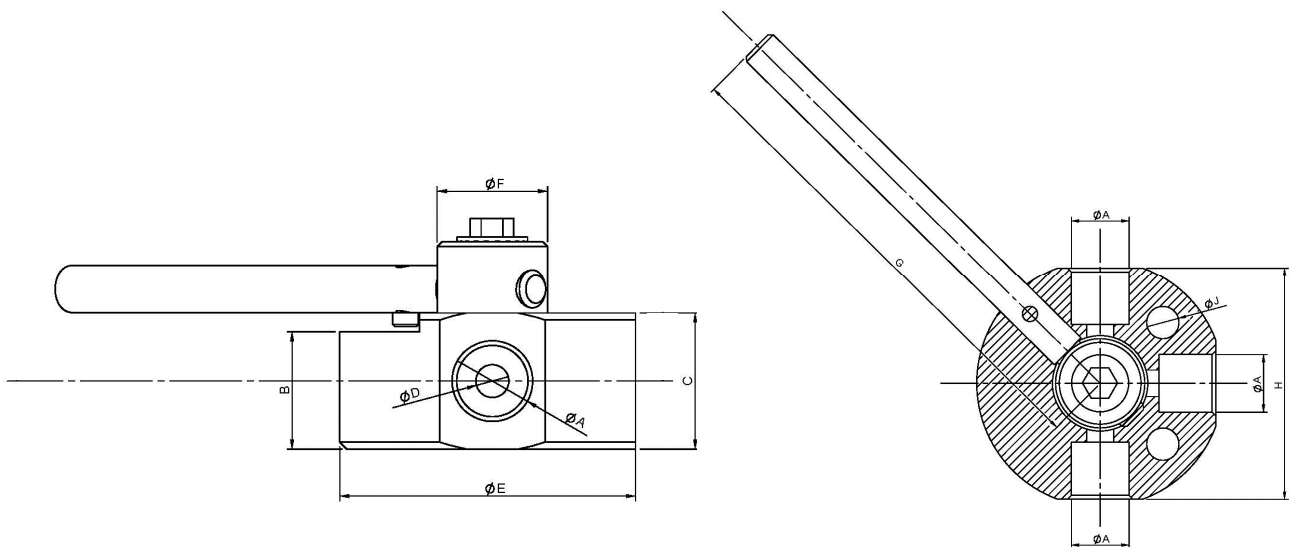
**471-1**




# 471 SERIES

## EK3

BSP



### STANDARD MODEL

DN	F	REF.		Ø A	B	C	Ø D	Ø E	Ø F	G	H	I	Ø J
10	3/8" BSP	471.1112AC	190Bar	15,20	25	29	7	65	26,50	127,25	61	15,50	8,50

## 471-2

INTEVA S.A. Reserves the right to make modifications in its products without prior notice







# 472 SERIES

## VPN

BSP



Aluminium manufacturing.  
Designed for pneumatic systems in trucks.  
BSP Threads, others upon request.

- **Materials**

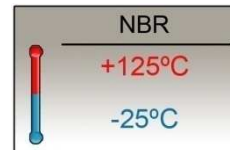
Body: *Aluminium*

Inner parts: *Carbon Steel EN 10277-3*

Seals: *NBR*

Handle: *Carbon Steel EN 10277-3*

- **Working temperature (Seals)**

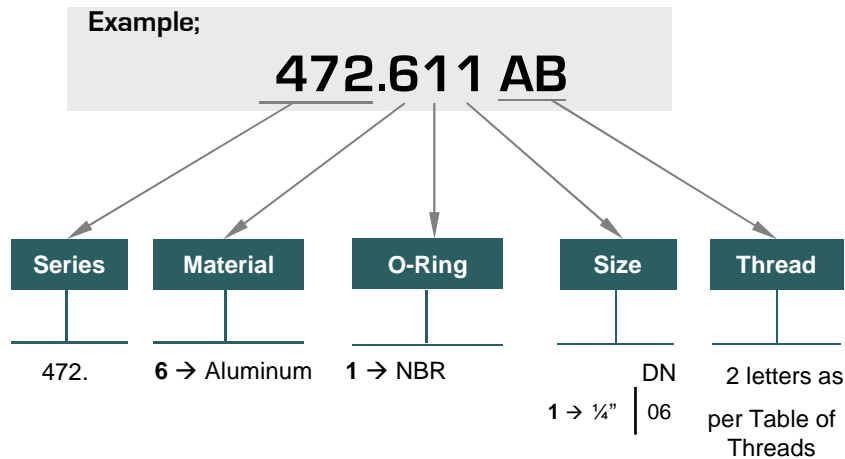


- **Sectors:** Trucks



- **Applications:** Designed for Pneumatic Systems. Applications according to European Directive 97.23.EC

### MODEL STRUCTURE



**472-1**

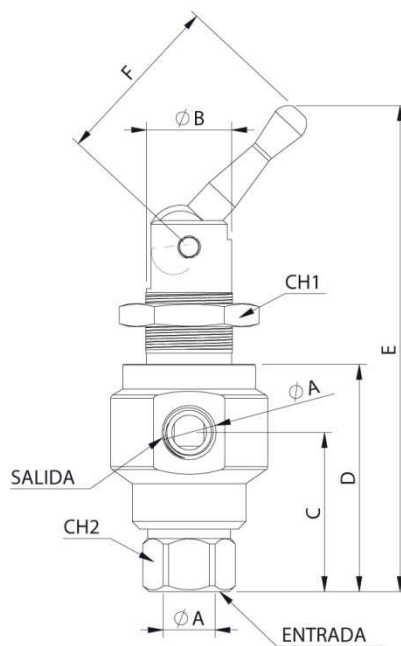





# 472 SERIES

## VPN

BSP



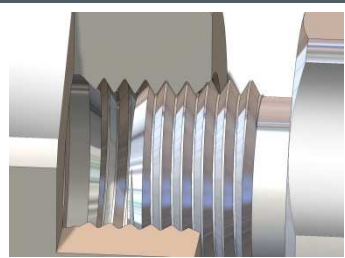
### STANDARD MODEL

DN	Ø A	REF.		Ø B	C	D	E	F	CH2	CH1
06	1/4" BSP	472.611AB	15Bar	25	43	60,50	125	46	22	32

**472-2**

INTEVA S.A. Reserves the right to make modifications in its products without prior notice





# SERIE 999 THREADS



BSP DIN 3852-2 Form A		
THREAD	FEMALE	MALE
1/8"	AA	AL
1/4"	AB	AM
3/8"	AC	AN
1/2"	AD	AO
3/4"	AE	AP
1"	AF	AQ
1 1/4"	AG	AR
1 1/2"	AH	AS
2"	AI	AT
2 1/2"	AJ	AU
3"	AK	AV

NPTF ANSI B1.20.3		
THREAD	FEMALE	MALE
1/8"	BA	BL
1/4"	BB	BM
3/8"	BC	BN
1/2"	BD	BO
3/4"	BE	BP
1"	BF	BQ
1 1/4"	BG	BR
1 1/2"	BH	BS
2"	BI	BT
2 1/2"	BJ	BU
3"	BK	BV

BSPT DIN 3852-2 Form C		
THREAD	FEMALE	MALE
1/8"	DA	DL
1/4"	DB	DM
3/8"	DC	DN
1/2"	DD	DO
3/4"	DE	DP
1"	DF	DQ
1 1/4"	DG	DR
1 1/2"	DH	DS
2"	DI	DT

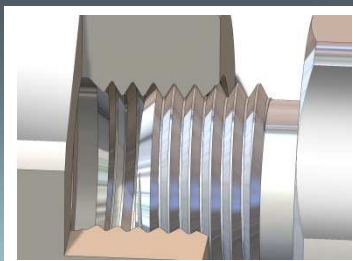
Metric DIN 3852-1 Form B		
THREAD	FEMALE	MALE
M8x1	NA	PA
M10x1	NC	PC
M12x1,5	NE	PE
M14x1,5	NF	PF
M16x1,5	NG	PG
M18x1,5	NH	PH
M20x1,5	NK	PK
M22x1,5	NM	PM
M26x1,5	NO	PO
M27x2	NQ	PQ
M33x2	NT	PT
M42x2	NU	PU
M48x2	NV	PV

Metric ISO 6149-2 (ORB)		
THREAD	FEMALE	MALE
M8x1	EA	OA
M10x1	EC	OC
M12x1,5	EE	OE
M14x1,5	EF	OF
M16x1,5	EG	OG
M18x1,5	EH	OH
M20x1,5	EK	OK
M22x1,5	EM	OM
M27x1,5	EO	OO
M33x2	EQ	OQ
M42x2	ET	OT
M48x2	EU	OU
M60x2	EV	OV

Metric ISO 9974-2 (Tipo E)		
THREAD	FEMALE	MALE
M8x1	NA	QA
M10x1	NC	QC
M12x1,5	NE	QE
M14x1,5	NF	QF
M16x1,5	NG	QG
M18x1,5	NH	QH
M20x1,5	NK	QK
M22x1,5	NM	QM
M26x1,5	NO	QO
M27x2	NQ	QQ
M33x2	NT	QT
M42x2	NU	QU
M48x2	NV	QV

DIN2353			
ROSCA L		ROSCA S	
M12x1,5 6L	JB	M16x1,5 8S	KD
M14x1,5 8L	JC	M18x1,5 10S	KE
M16x1,5 10L	JD	M20x1,5 12S	KF
M18x1,5 12L	JE	M22x1,5 14S	KG
M22x1,5 15L	JG	M24x1,5 16S	KH
M26x1,5 18L	JI	M30x1,5 20S	KJ
M30x2 22L	JJ	M36x2 25S	KK
M36x2 28L	JK	M42x2 30S	KL
M45x2 35L	JM	M52x2 38S	KN

DIN2353 Bulkhead			
ROSCA L		ROSCA S	
M12x1,5 6L	LB	M16x1,5 8S	MD
M14x1,5 8L	LC	M18x1,5 10S	ME
M16x1,5 10L	LD	M20x1,5 12S	MF
M18x1,5 12L	LE	M22x1,5 14S	MG
M22x1,5 15L	LG	M24x1,5 16S	MH
M26x1,5 18L	LI	M30x2 20S	MJ
M30x2 22L	LJ	M36x2 25S	MK
M36x2 28L	LK	M42x2 30S	ML
M45x2 35L	LM	M52x2 38S	MN



# SERIE 999 THREADS



## ISO 8434-2 (JIC)

THREAD	FEMALE	MALE
3/8" -24UNF	UA	YA
7/16"-20UNF	UB	YB
1/2" - 20UNF	UC	YC
9/16"-18UNF	UD	YD
11/16"-16UN	UE	YE
3/4"-16UNF	UF	YF
13/16"-16UN	UG	YG
7/8"-14UNF	UH	YH
1 1/16"-12UN	UK	YK
1 3/16"-12UN	UM	YM
1 5/16"-12UN	UO	YO
1 7/16"-12UN	UQ	YQ
1 5/8"-12UN	UT	YT
1 11/16"-12UN	UU	YU
1 7/8"-12UN	UV	YV

## ISO 8434-2 (Bulkhead JIC)

THREAD	FEMALE	MALE
3/8" -24UNF	-	YAP
7/16"-20UNF	-	YBP
1/2" - 20UNF	-	YCP
9/16"-18UNF	-	YDP
11/16"-16UN	-	YEP
3/4"-16UNF	-	YFP
13/16"-16UN	-	YGP
7/8"-14UNF	-	YHP
1 1/16"-12UN	-	YKP
1 3/16"-12UN	-	YMP
1 5/16"-12UN	-	YOP
1 7/16"-12UN	-	YQP
1 5/8"-12UN	-	YTP
1 11/16"-12UN	-	YUP
1 7/8"-12UN	-	YVP

## UNF SAE J1926 (ORB)

THREAD	FEMALE SAE J1926-1	MALE SAE J1926-2
3/8" 24UNF	GA	HA
7/16"-20UNF	GB	HB
1/2" - 20UNF	GC	HC
9/16"-18UNF	GD	HD
11/16"-16UN	GE	HE
3/4"-16UNF	GF	HF
13/16"-16UN	GG	HG
7/8"-14UNF	GH	HH
1 1/16"-12UN	GK	HK
1 3/16"-12UN	GM	HM
1 5/16"-12UN	GO	HO
1 7/16"-12UN	GQ	HQ
1 5/8"-12UN	GT	HT
1 11/16"-12UN	GU	HU
1 7/8"-12UN	GV	HV

## ISO 8434-3 (ORFS)

THREAD	FEMALE	MALE
3/8" -24UNF	VA	ZA
7/16"-20UNF	VB	ZB
1/2" - 20UNF	VC	ZC
9/16"-18UNF	VD	ZD
11/16"-16UN	VE	ZE
3/4"-16UNF	VF	ZF
13/16"-16UN	VG	ZG
7/8"-14UNF	VH	ZH
1 1/16"-12UN	VK	ZK
1 3/16"-12UN	VM	ZM
1 5/16"-12UN	VO	ZO
1 7/16"-12UN	VQ	ZQ
1 5/8"-12UN	VT	ZT
1 11/16"-12UN	VU	ZU
1 7/8"-12UN	VV	ZV

## ISO 8434-3 (ORFS Bulkhead)

THREAD	FEMALE	MALE
3/8" -24UNF	-	ZAP
7/16"-20UNF	-	ZBP
1/2" - 20UNF	-	ZCP
9/16"-18UNF	-	ZDP
11/16"-16UN	-	ZEP
3/4"-16UNF	-	ZFP
13/16"-16UN	-	ZGP
7/8"-14UNF	-	ZHP
1 1/16"-12UN	-	ZKP
1 3/16"-12UN	-	ZMP
1 5/16"-12UN	-	ZOP
1 7/16"-12UN	-	ZQP
1 5/8"-12UN	-	ZTP
1 11/16"-12UN	-	ZUP
1 7/8"-12UN	-	ZVP

## BSP Bulkhead

THREAD	MALE
1/8"	CL
1/4"	CM
3/8"	CN
1/2"	CO
3/4"	CP
1"	CQ
1 1/4"	CR
1 1/2"	CS
2"	CT

## SPECIALS

THREAD	
KFA	M20x1,5 Ø13,5
KFB	M20x1,5 Cone 60°
HFA	3/4"-16M. Without 37°
JDA	M16x1,5 Bulkhead M20x1,5
GFA	3/4"-16UNF cylinder
JGA	M22x1,5 Prolonged
JGB	M22x1,5 15L Long. Hex 35mm
LGA	M22 Bulkhead Prolonged