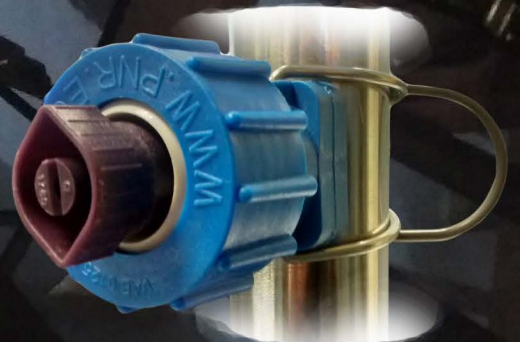
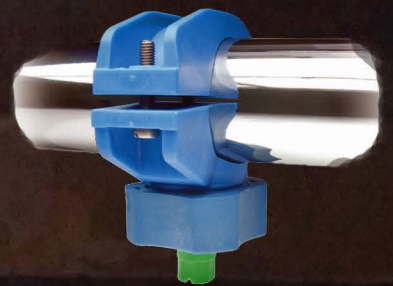


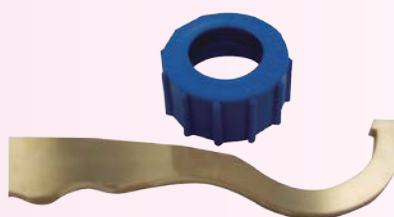
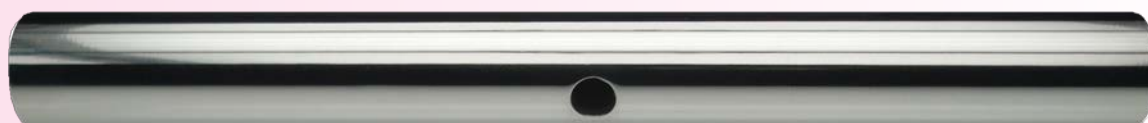


Pretreatment Spray Nozzles & Fittings



CLIP-ON NOZZLES

Diversified manufacturing is a competitiveness key-factor today. PNR Italy manufactures several diversified products to meet all costumers' needs and help them achieve their production targets. Its complete product range includes clip-on nozzles which now widely used by European and American automobile manufacturers. In the automobile industry the coating lines and 3C lines are representative of diversified production requiring timely adjustments of nozzles spray direction and coverage. Moreover, in such operating environments, nozzles must be regularly cleaned and serviced to ensure high quality coating. To satisfy such requirements PNR has developed cutting-edge quality products to enhance the productivity and competitiveness of the production plant. PNR clip-on adjustable nozzles, made with innovative design and in top quality materials, shorten installation, adjustment and servicing times to the benefit of production efficiency. These nozzles are installed on pipes and can be rapidly released and changed at any time or easily adjusted to different production conditions. PNR clip-on nozzles fully comply with below specifications.



SWIVEL NOZZLE CLAMPS

ZPF swivel clamps are specially designed for HGQ, RGN and ZBA series. To install them on pipes all you need is drill a hole, insert the nozzle clamp inside and fasten it with a simple screwdriver. The nozzle clamp body is in PP chemically bonded fibreglass whereas accessorial bolts and screws are made in stainless steel AISI 316. They are robust, easy to install, adjust and service and their design revolutioned modern surface pre-treatment plants. They provide excellent performance at high temperatures and easy spray jet orientation.

- Typical application

Cleaning equipment used in pre-treatment for coating process
- Max working temperature

LT 80°C
- Max working pressure

LP 5 bar
- Materials

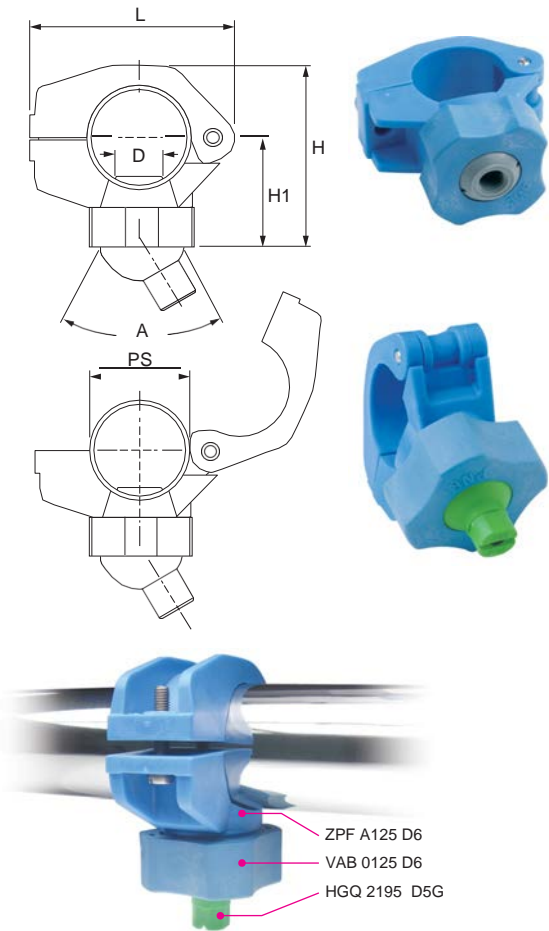
Body D6 PP, chemically bonded fibreglass

Pin & bolt B3 AISI 316 Stainless steel

O-ring E8 NBR

Code	PS inch	PD mm	D mm	H mm	H1 mm	L mm	A deg	W g
ZPF A125 D6	1 1/4"	41/43	20.0	83	54	84	40°	
ZPF B125 D6			17.0					
ZPF C125 D6			14.0					
ZPF A150 D6	1 1/2"	46/49	20.0	90	57	90	40°	88
ZPF B150 D6			17.0					
ZPF C150 D6			14.0					

HOW TO MAKE UP THE PRODUCT CODE EX.: ZPF A125 D6



CLIP-ON NOZZLES

(SWIVEL NOZZLE CAM AND LEVER CLAMPS) ZPQ

SWIVEL NOZZLE CAM AND LEVER CLAMPS

ZPQ cam and lever clamps are specially designed for HGQ, RGN and ZBA ball nozzles. Only three steps to install them on a pipe: drill a hole, wrap the cam around the pipe and pull the lever down to block it. No need of tools. The body is in PP chemically bonded fibreglass whereas accessorial bolts and screws are made in stainless steel AISI 316. ZPQ swivel nozzles with cam and lever clamps provide excellent performance at high temperatures and easy spray jet orientation.

- Common application

Surface pre-treatment plants
- Max working temperature

LT 80°C
- Max working pressure

LP 5 bar
- Materials

Body D6 PP, chemically bonded fibreglass

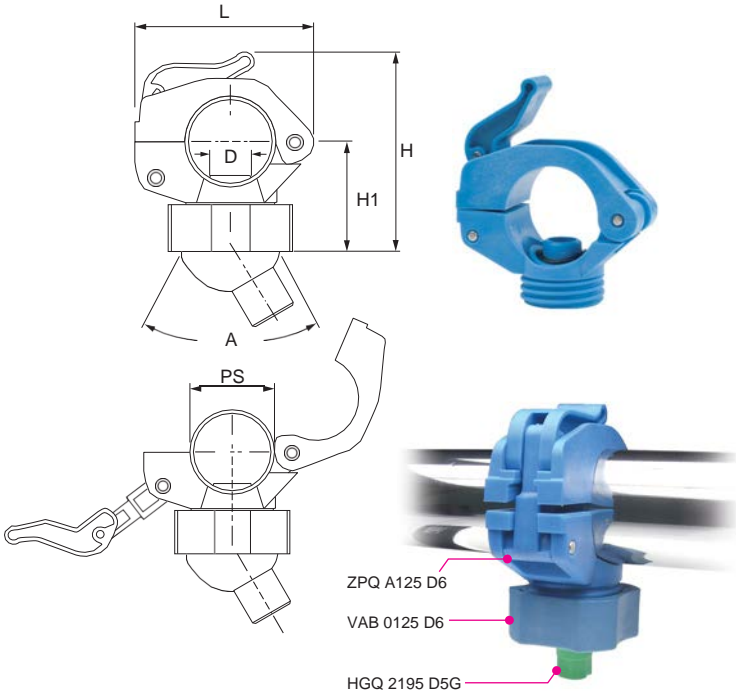
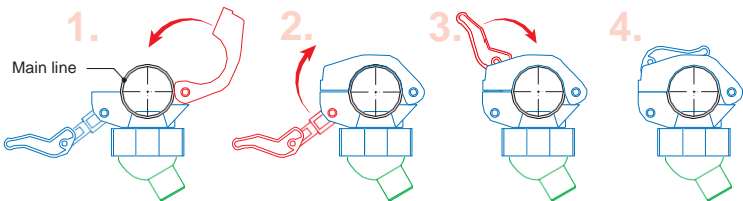
Pin & bolt B3 AISI 316 Stainless steel

O-ring E8 NBR

Seal D22 Soft polypropylene

Code	PS inch	PD mm	D mm	H mm	H1 mm	L mm	A deg	W g
ZPQ A125 D6	1 1/4"	42/43	20.0	93	41	84	40°	87
ZPQ B125 D6			17.0					
ZPQ A150 D6	1 1/2"	48/49	20.0	96	44	95	40°	97
ZPQ B150 D6			17.0					

HOW TO INSTALL THE SWIVEL NOZZLE CAM & LEVER CLAMPS

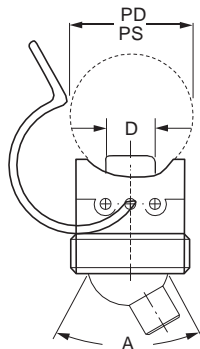


ZPL / ZPN (SWIVEL NOZZLE SPRING PIPE CLAMPS)

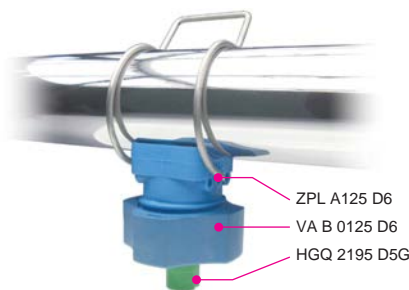
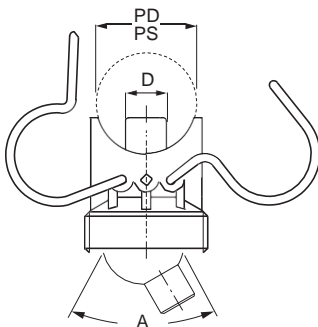
www.pnr.co.uk



ZPL Single spring



ZPN Double spring
Better stability



SWIVEL NOZZLE SPRING PIPE CLAMPS

ZPL/ ZPN pipe clamps are specially designed for swivel ball nozzles. Drill a hole and fix the clamp with one screw. Body is made of fibreglass reinforced PP, screw and spring SUS316. ZPL/ ZPN swivel nozzles work under high temperature and high degree of intensity. ZPL/ ZPN swivel nozzle pipe clamps are widely used in surface pre-treatment.

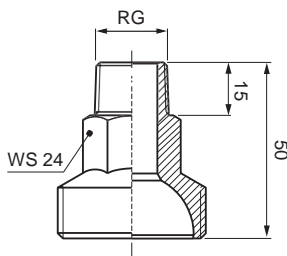
- Typical application: Cleaning equipment used in pre-treatment for coating process
- Max working temperature: LT 80°C
- Max working pressure: ZPL Single spring 2 bar, ZPN Double spring 3 bar
- Materials: Body D6 PP, chemically bonded fiberglass; Spring N1 AISI 302 Stainless steel, heat treated; O-ring E8 NBR

Code		PS	PD	D	A	W
Single spring	Double spring	inch	mm	mm	deg	g
ZPL C100 D6	ZPN C100 D6	1"	32/34	14.0	40°	
ZPL A125 D6	ZPN A125 D6	1 1/4"	41/43	20.0	40°	
ZPL B125 D6	ZPN B125 D6			17.0		
ZPL C125 D6	ZPN C125 D6			14.0		46/65
ZPL A150 D6	ZPN A150 D6	1 1/2"	46/49	20.0	40°	
ZPL B150 D6	ZPN B150 D6			17.0		
ZPL C150 D6	ZPN C150 D6			14.0		

HOW TO MAKE UP THE PRODUCT CODE EX.: ZPL C100 D6

ZPL C 100 D6
MATERIAL: D6 - PP, chemically bonded fiberglass
CODE
CLAMP TYPE: ZPL - Single spring, ZPN - Double spring

ZLF (SWIVEL NOZZLE THREADED NIPPLE)



SWIVEL NOZZLE THREADED NIPPLE

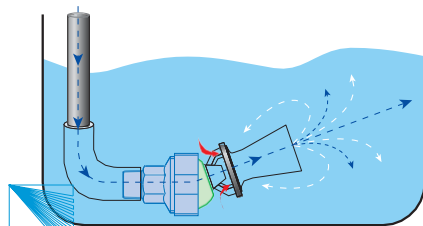
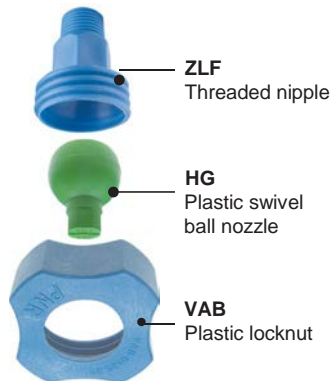
ZLF series threaded nipples offer another convenient type of installation for swivel ball nozzles. They are made of fibreglass reinforced PP. ZLF series work under high temperature and high degree of intensity. ZLF threaded nipples are widely used in surface pre-treatment.

- Typical application: Cleaning equipment used in pre-treatment for coating process
- Max working temperature: LT 80°C
- Max working pressure: LP 4 bar
- Material: D6 PP, chemically bonded fiberglass

Code	RG inch BSPT	RG inch NPT	W g
ZLF A038 D6	3/8"	-	15
ZLF B038 D6	-	3/8"	
ZLF A050 D6	1/2"	-	
ZLF B050 D6	-	1/2"	

HOW TO MAKE UP THE PRODUCT CODE EX.: ZLF A038 D6

ZLF A 038 D6
MATERIAL: D6 - PP, chemically bonded fiberglass
CODE
CLAMP TYPE

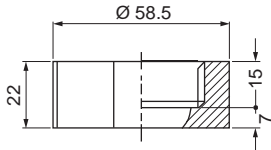
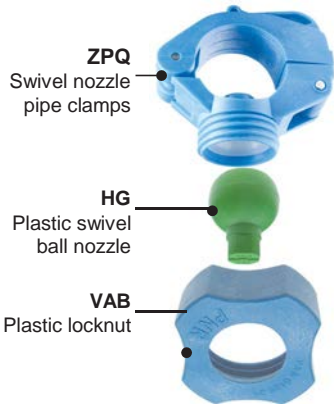


ZLF threaded nipples offer the best mixing effect and are often used in combination with UPB mixing eductors.

PLASTIC LOCKNUTS

VAB plastic locknuts are exclusively designed for ball nozzles. Their special thread and shape allow to assemble the cap and by hand, with no need of tools, thus making all servicing operations easier and quicker. They are made of high quality PP or chemically bonded fibreglass to keep stability at high temperatures and offer the best resistance to chemicals.

- Material
D6 PP, chemically bonded fiberglass
- Max working temperature
LT 80°C



VAB 0125 D6

HOW TO MAKE UP THE PRODUCT CODE EX.: VAB 0125 D6

VAB 0125 D6

MATERIAL D6- PP, chemically bonded fiberglass

CODE

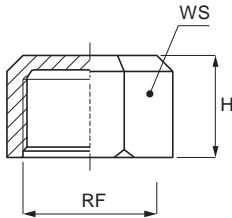
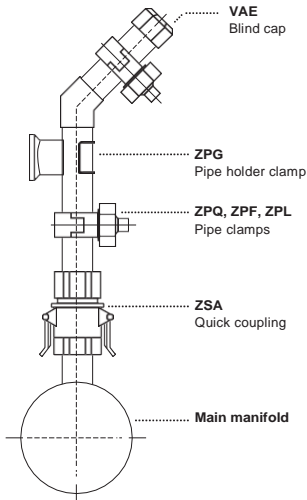
LOCKNUT TYPE

(PLASTIC END CAPS) VAE

PLASTIC END CAPS

VAE plastic caps are specially used to close pipes ends. Besides, 1 1/4" VAE 1250 D6 plastic caps can be used to seal pipes ends when, to manufacture different size products, it's necessary to reduce the quantity of swivel nozzles. They are made of high quality PP or chemically bonded fibreglass to keep stability at high temperatures and offer the best resistance to chemicals. They are widely used in surface pre-treatment.

- Material
D6 PP, chemically bonded fiberglass
- Max working temperature
LT 80°C



Code	RF inch	H mm	WS mm
VAE 1000 D6	1"	25	42
VAE 1250 D6	1 1/4"	32	52
VAE 1500 D6	1 1/2"	32	60

HOW TO MAKE UP THE PRODUCT CODE EX.: VAE 1000 D6

VAE 1000 D6

MATERIAL D6- PP, chemically bonded fiberglass

CODE

CAP TYPE

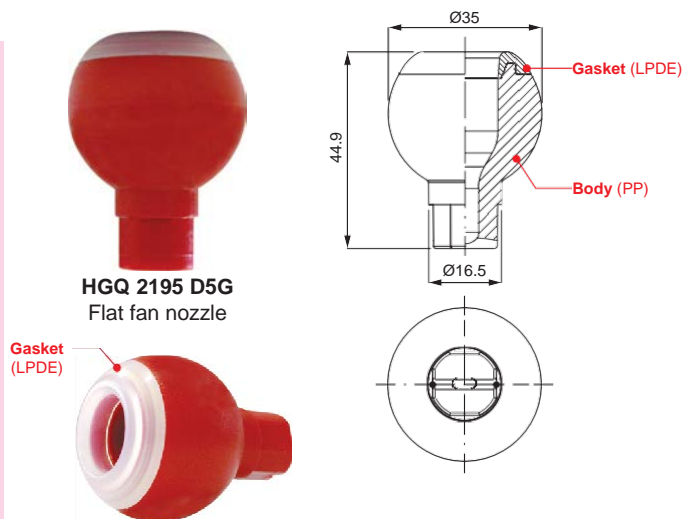
(THREADED AND QUICK-FIT SPHERES) ZBA

THREADED AND QUICK-FIT SPHERES

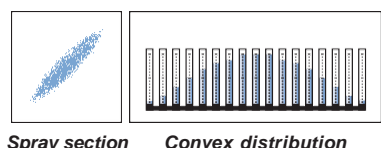
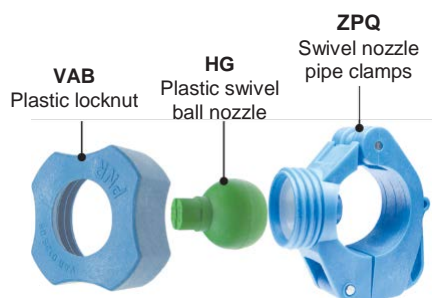
ZBA swivel nozzles are produced with three different types of connections: threaded, quick-fit and blind hole. The threaded nozzles are assembled to threaded swivel joints. The quick-fit types are designed for HTQ/ KSQ quick-fit flat fan nozzles whereas the blind hole models are specially used in spraying processes requiring changes and pauses.

Code		RF BSPP inch	RF NPT inch
One piece	Two pieces		
ZBA A025 D5	ZBA GBN1 D5G	1/4" F	
ZBA B025 D5	ZBA NBN1 D5G		1/4" F
ZBA A038 D5	ZBA GCN1 D5G	3/8" F	
ZBA B038 D5	ZBA NCN1 D5G		3/8" F
ZBA A050 D5	ZBA GDN1 D5G	1/2" F	
ZBA 0000 D5	ZBA 00N0 D5Y	Blind	
ZBA QQN1 D5	ZBA QQN1 D6G	Quick connection	





HGQ 2195 D5G
Flat fan nozzle




PLASTIC SWIVEL BALL NOZZLES

HGQ and RGN plastic swivel ball nozzles are designed for diversified applications. They allow an easy adjustment of their spray jet direction and offer a quick-fit connection.

- Nozzle type: Flat fan nozzles, Hollow cone nozzles
- Typical application: Cleaning equipment used in pre-treatment for coating process
- Material: Body D5 Powder-filled polypropylene


FLAT FAN NOZZLES

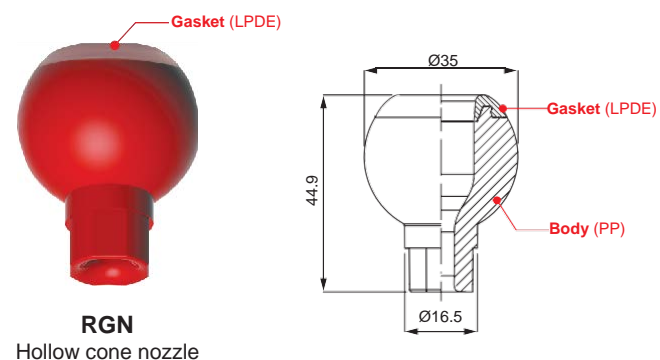
HGQ flat fan nozzles feature a 60° spray angle and their wide range of flow rates makes them the best choice in pre-treatment plants. For an easier identification and use, they are made in different colours depending on the flow rate. The material is top quality PP, chemically bonded fibreglass to offer the best stability at high temperatures and resistance to chemicals.

	Code	Capacity at different pressure values (l/min) (bar)					Color	W g	
60°	HGQ 1390 D5G	1.7	2.0	2.4	2.9	3.3	Black	16	
	HGQ 1770 D5G	3.2	3.8	4.5	5.5	6.4	Purple		
	HGQ 1980 D5G	4.0	4.7	5.6	6.9	8.0	Brown		
	HGQ 2117 D5G	4.6	5.5	6.5	8.0	9.3	Yellow		
	HGQ 2135 D5G	5.5	6.5	7.8	9.5	11.0	Gray		
	HGQ 2155 D5G	6.2	7.4	8.8	10.8	12.5	Red		
	HGQ 2195 D5G	7.8	9.2	11.0	13.8	15.6	Green		
	HGQ 2230 D5G	9.5	11.3	13.5	16.3	19.1	Blue		
	HGQ 2270 D5G	10.9	12.8	15.4	18.8	21.7	Sky blue		
	HGQ 2337 D5G	13.8	16.4	19.5	24.0	27.7	White		
	HGQ 2410 D5G	16.7	19.8	23.6	29.0	33.5	Pink		
Pressure (bar)		0.5	0.7	1.0	1.5	2.0			

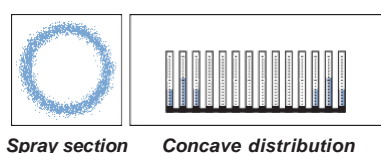
HOLLOW CONE NOZZLES

RGN hollow cone nozzles have a 50° spray angle and offer a wide range of flow rates, all identified by a particular nozzle colour to avoid any possible confusion. The material is top quality PP, chemically bonded fibreglass to offer the best stability at high temperatures and resistance to chemicals. For these features they are widely used in pre-treatment plants.

	Code	Capacity at different pressure values (l/min) (bar)					Color	W g
50°	RGN 2175 D5G	7.1	8.5	10.1	12.4	14.3	Red	25
	RGN 2215 D5G	8.8	10.4	12.4	15.2	17.6	Blue	
	RGN 2390 D5G	15.9	18.8	22.5	27.6	31.8	Black	
Pressure (bar)		0.5	0.7	1.0	1.5	2.0		



RGN
Hollow cone nozzle



HOW TO MAKE UP THE NOZZLE CODE

EX.: HGQ 1390 D5G

HGQ 1390 D5G

MATERIAL • D5 - Powder-filled polypropylene

CAPACITY

NOZZLE TYPE • HGQ - Flat fan nozzles (60°)
• RGN - Hollow cone nozzles (50°)

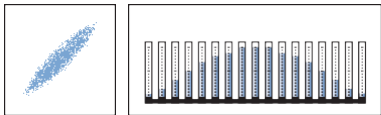
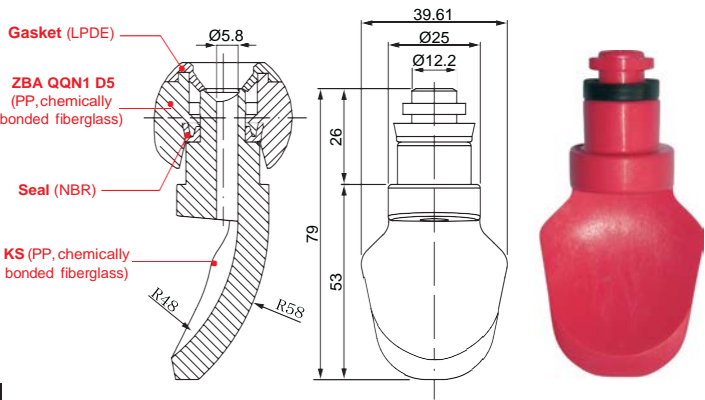
FLAT FAN QUICK-FIT SPOON NOZZLES

KS flat fan quick-fit spoon nozzles produce a flat spray pattern with a 60° deflection spray angle and offer the highest possible impact for a given feed pressure, up to 60° compared to standard turbulence flat fan nozzles. The innovative design ensures the ideal efficiency for deep cleaning and their quick connection makes them easy to assemble and avoids leakage. The different flow rates are identified by their colours available for proper selection. Materials are high quality PP and chemically bonded fibreglass to keep stability at high temperatures and be chemicals-resistant. These nozzles are widely used in surface pre-treatments.

- Material
- PP, chemically bonded fiberglass
- Typical applications
- Cleaning equipment used in pre-treatment for coating process

	Code	Capacity (l/min) at different pressure values (bar)						Color	W g
60°	KSQ 2155 D6QQ	6.3	7.5	8.9	11.0	12.7		Red	23
	KSQ 2195 D6QQ	8.0	9.4	11.3	13.8	15.9		Green	
	KSQ 2230 D6QQ	9.4	11.1	13.3	16.3	18.8		Blue	
	KSQ 2270 D6QQ	11.0	13.0	15.6	19.1	22.0		Sky blue	
	KSQ 2337 D6QQ	13.8	16.3	19.5	23.8	27.5		White	
	KSQ 2390 D6QQ	15.9	18.8	22.5	27.6	31.8		Orange	
	KSQ 2410 D6QQ	16.7	19.8	23.7	29.0	33.5		Pink	
	KSQ 2433 D6QQ	17.7	20.9	25.0	30.6	35.4		Brown	

Perssure (bar) 0,5 0,7 1,0 1,5 2,0



CLIP-ON NOZZLES

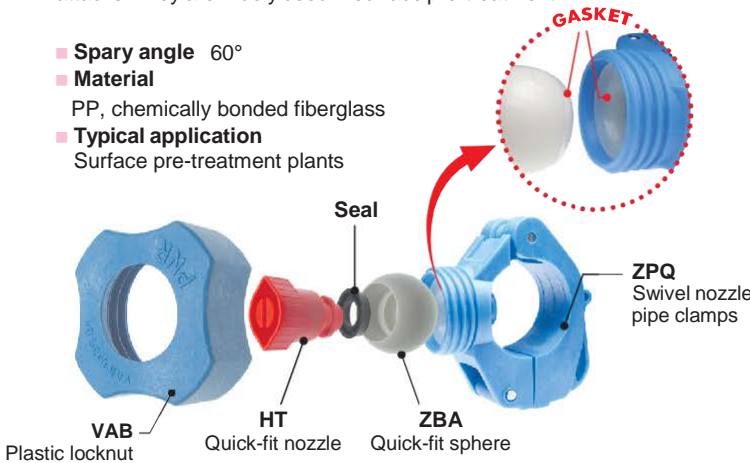
(FLAT FAN QUICK-FIT NOZZLES)

HT

FLAT FAN QUICK-FIT NOZZLES

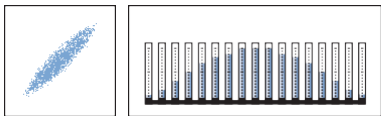
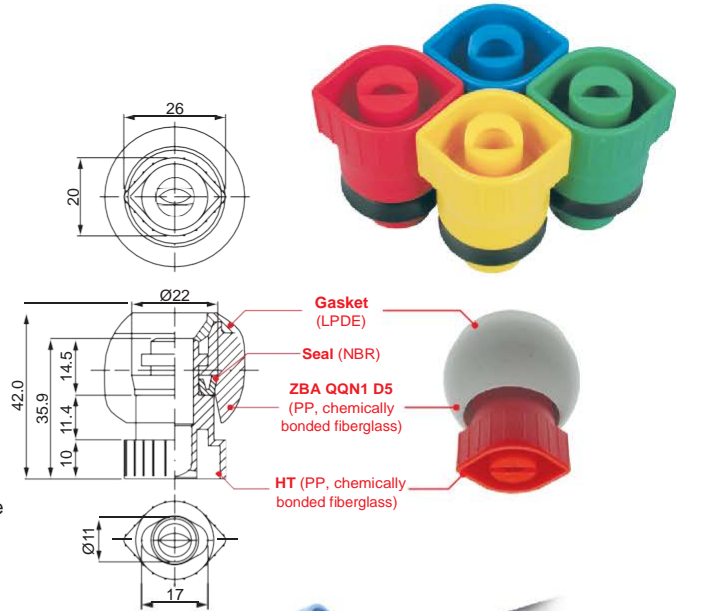
HTQ type flat fan quick-fit nozzles feature 60° spray angle and impact force for a given feed pressure. The new design offers the ideal efficiency for cleaning, quick-fit design for ease of assembly and seal that avoids leakage. Different flow rates are distinguished by color and available for selection. The materials are high quality PP, chemically bonded fiberglass in order to remain stable in high temperature and chemical attacks. They are widely used in surface pre-treatment.

- Spray angle 60°
- Material
- PP, chemically bonded fiberglass
- Typical application
- Surface pre-treatment plants



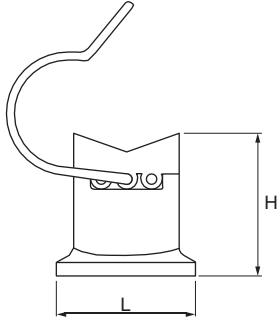
	Code	Capacity (l/min) at different pressure values (bar)						Color
60°	HTQ 1390 D6QQ	1.6	1.9	2.3	2.8	3.2		Black
	HTQ 1590 D6QQ	2.4	2.8	3.4	4.2	4.8		Purple
	HTQ 1780 D6QQ	3.2	3.8	4.5	5.5	6.4		Lilac
	HTQ 2117 D6QQ	4.8	5.7	6.8	8.3	9.6		Yellow
	HTQ 2153 D6QQ	6.2	7.4	8.8	10.8	12.5		Red
	HTQ 2195 D6QQ	8.0	9.4	11.3	13.8	15.9		Green
	HTQ 2230 D6QQ	9.4	11.1	13.3	16.3	18.8		Blue
	HTQ 2274 D6QQ	11.2	13.2	15.8	19.4	22.4		Sky blue

Perssure (bar) 0,5 0,7 1,0 1,5 2,0

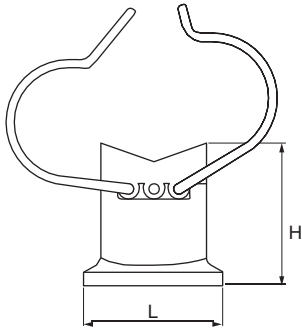




Single spring



Double spring



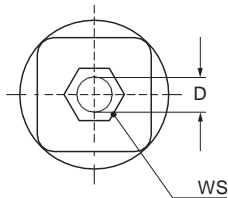
PIPE HOLDERS

ZPG pipe holders are a user-friendly and convenient solution for fixing spray manifolds onto tunnels walls in surface treatment plants. They are easy to assemble, excellent fastening and low cost. The single spring type is suitable for plastic holder whereas the double spring version is meant for metallic pipe holders.

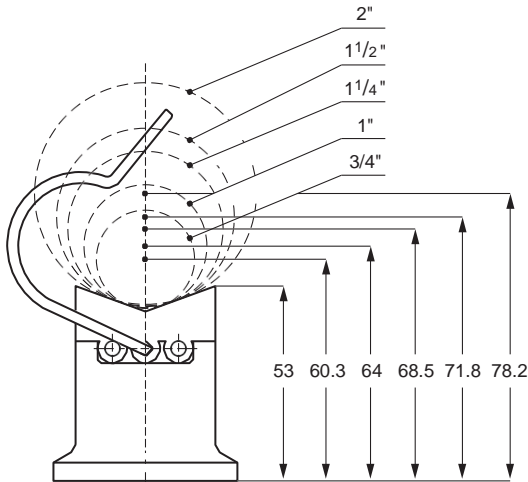
- Typical application: Cleaning equipment used in pre-treatment for coating process
- Pipe size: PS 3/4", 1", 1 1/4", 1 1/2", 2"
- Materials: D6 PP, chemically bonded fiberglass; N1 AISI 302 Stainless steel, heat treated
- Body: Springs

Code		PS	D	H	L	WS	W
Single spring	Double spring	inch	mm	mm	mm	mm	g
ZPG 1075 D6	ZPG 2075 D6	3/4"	11	53	50	17	72
ZPG 1100 D6	ZPG 2100 D6	1"					72
ZPG 1125 D6	ZPG 2125 D6	1 1/4"					90
-	ZPG 2150 D6	1 1/2"					90
-	ZPG 2200 D6	2"					110

Weight values are based on the double spring version



ZPG body is designed to be fastened to the tunnel wall by means of one M10 bolt with 17 mm hexagonal head.



The drawing shows the distances of the pipe central axis from the wall for different pipe sizes assembled onto the pipe holder.

HOW TO MAKE UP THE PRODUCT CODE

EX.: ZPG 1075 D6

ZPG 1 075 D6

- MATERIAL: D6 - PP, chemically bonded fiberglass
- PIPE CODE:
 - 075 - 3/4"
 - 100 - 1"
 - 125 - 1 1/4"
 - 150 - 1 1/2"
 - 200 - 2"
- CLAMP CODE:
 - 1 - Single spring
 - 2 - Double spring
- PIPE HOLDERS



The above photo shows a European top coating plant using our products

QUICK COUPLING JOINTS

ZSA quick coupling joints are a very popular solution for industrial facilities requiring ease of operation.

- Thread size

■ Thread specification

■ Typical applications
- 3/4", 1", 1 1/4", 1 1/2"

BSP, NPT

Cleaning equipment used in pre-treatment for coating process
Addition and release of liquids in chemical tankers
- Materials

Body

Lever

O-ring
- D6 PP, chemically bonded fiberglass

B3 AISI 316 Stainless steel

B31 AISI 316L Stainless steel, cast

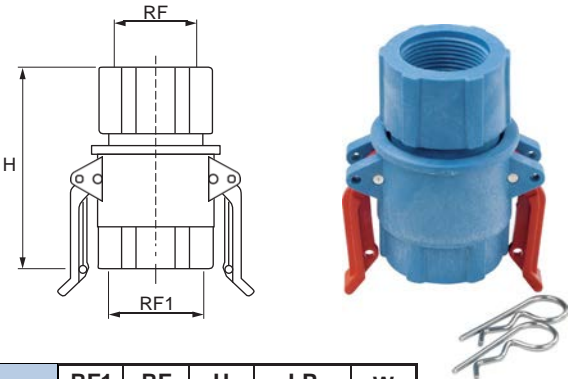
B35 AISI 316 Stainless steel, sintered

D8 PVDF, Polyvinylidene fluoride

E0 EPDM

E7 Viton

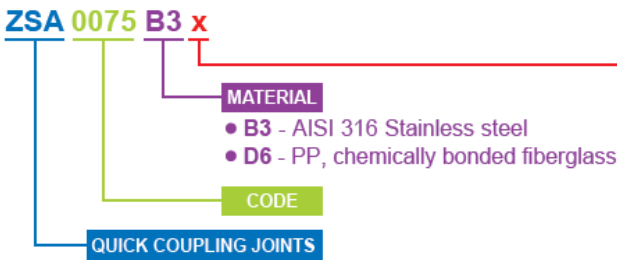
E8 NBR



Code	RF1 inch	RF inch	H mm	LP bar	W kg
ZSA 0075 B3x	3/4"	3/4"	85	15	*
ZSA 0100 B3x	1"	1"	73	15	
ZSA 0100 D6x			73	7	
ZSA 0125 B3x	1 1/4"	1 1/4"	110	15	
ZSA 0125 D6x				7	
ZSA 0150 D6x	1 1/2"	1 1/4"	110	6	
ZSA 0151 B3x	1 1/2"	1 1/2"	110	15	
ZSA 0151 D6x				6	

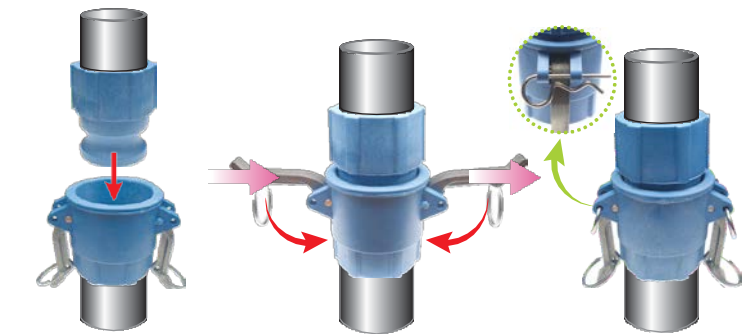
* Weight values for different materials are given on request.

HOW TO MAKE UP THE
PRODUCT CODE EX.: ZSA 0075 B3B



X	Orientation	Lever material	O-ring	Rings
B	Fixed	AISI 316, sint	EPDM	AISI 316
C	Fixed	PVDF	EPDM	AISI 316
D	Fixed	PVDF	VITON	AISI 316
H	Fixed	AISI 316, sint	VITON	AISI 316
S	Free	AISI 316, sint	EPDM	AISI 316
T	Free	PVDF	EPDM	AISI 316
U	Free	PVDF	VITON	AISI 316
Y	Free	AISI 316, sint	VITON	AISI 316

QUICK COUPLING JOINTS - INSTALLMENT

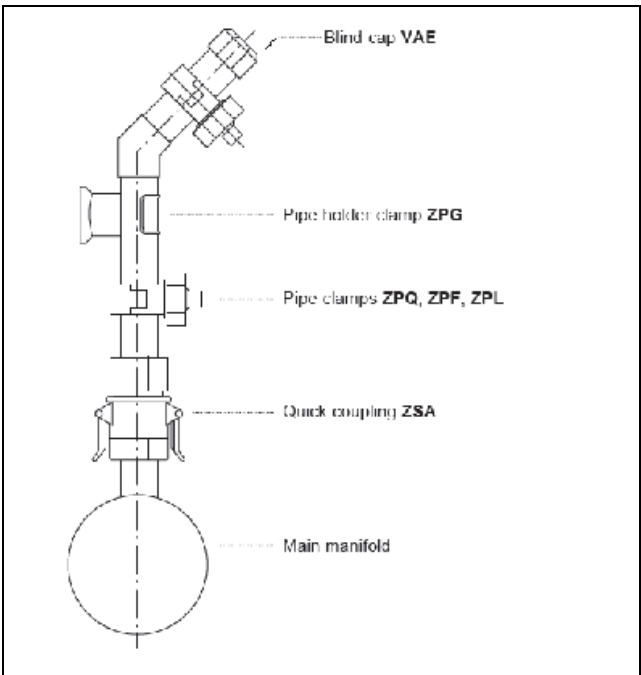


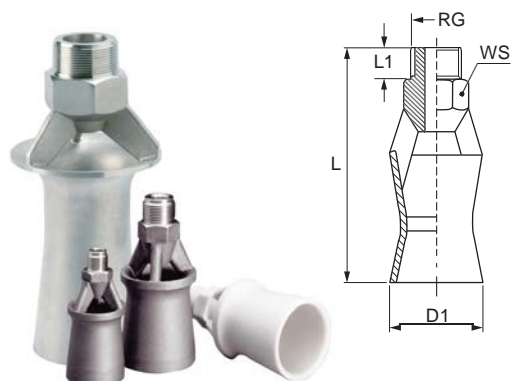
- A. Join two parts of quick coupling together
- B. Put levers down and fasten
- C. Fix bolt and complete coupling together

QUICK FITTING RISERS AND HEADER MANIFOLDS

Our range of products for surface pre-treatment plants is the most complete on the market and has been developed in collaboration with the most important system manufacturers on a worldwide basis. PNR has designed most of the assembly accessories commonly adopted today in pre-treatment plants.

Right figure shows the installment steps. Quick couplings and pipe holder clamps can be quickly assembled and disassembled in seconds to minimize maintenance and shut-off time.





MIXING EDUCTORS

UPB mixing eductors are energy saving products. Their robust bell-shaped body minimizes the risk of damage during maintenance operations and the Venturi design assures a high mixing efficiency. These eductors enable the circulation of large volumes of liquid and are ideal for continuous blending and stirring of liquids or solutions in tanks. The UPB eductors are installed at the bottom of a tank and pressurized to spray the solution. This flow creates a powerful negative pressure that allows to take in four times the liquid volume, mix it with a solution inside the nozzle and spray it back into the tank at a high speed. 1 HP pump and UPB mixing eductor can replace a 5 HP mixing eductor. UPB eductors are an efficient way to get the best performance from re-circulating process tanks and are cost-effective because they reduce the electrical costs.

■ Typical applications

Liquid mixing in electroplating and automotive paint factories

■ Thread specification

BSPT, NPT

■ Max working temperature

LT 80°C (PP), 90°C (PVDF)

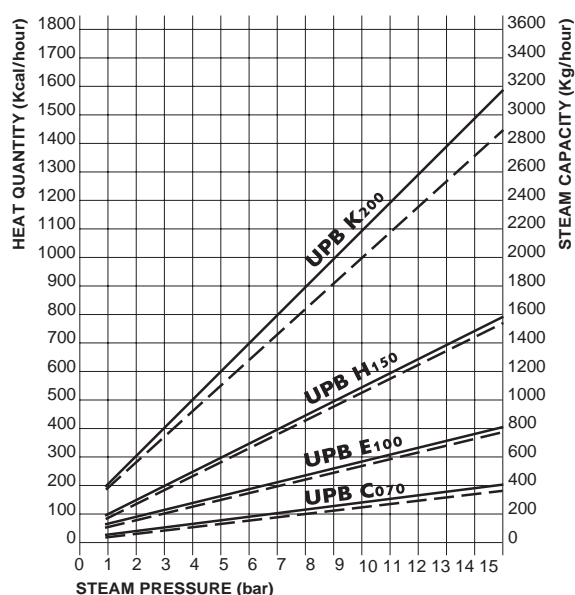
■ Materials

B31 AISI 316L Stainless steel

D6 PP, chemically bonded fiberglass

D82 PVDF, moulded (3/8" Parallel Male thread)

STEAM CONSUMPTION CHART



Code	RG inch	D mm	Flow rate at pressure (l/min) (bar)					D1 mm	L mm	L1 mm	WS mm
			1.0	2.0	3.0	4.0	5.0				
UPB C070 B31Sx	3/8"	7.0	34	48	59	68	76	45	98	15	22
UPB C070 D6Sx		7.0	34	48	59	68	76				
UPB C070 D82Sx		7.0	34	48	59	68	76				
UPB E100 B31R	1/2"	10.0	63	89	109	126	141	60	132	20	30
UPB E100 B31Sx	3/4"	10.0	63	89	109	126	141	60	132	20	30
UPB E100 D6Sx											
UPB H150 B31Sx	1 1/2"	15.0	155	220	268	310	346	110	225	30	60
UPB K200 B31Sx	2"	20.0	206	287	357	410	460	102	295	30	70

EX.: UPB C070 B31Sx

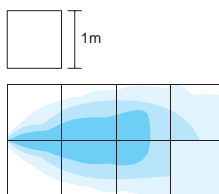
x = Thread codes

B = BSPT, S.Steel only

G = BSPP, PP & PVDF

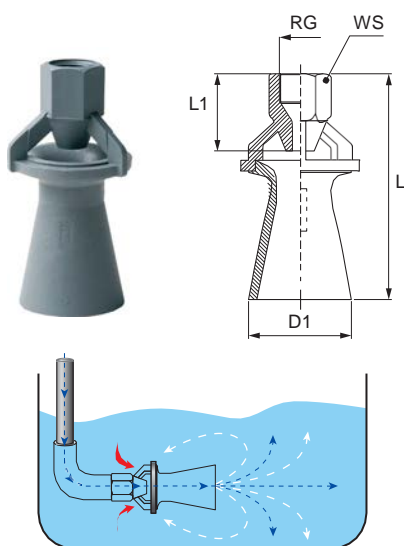
N = NPT, all materials

The table aside shows the working condition of UPB C070 B31 eductor when set at 50 cm depth.



Under normal operating conditions, with feed pressure values ranging from 2 to 4 bars, eductors with a total capacity equal to 20% of the liquid volume to be stirred proved to be adequate for most industrial applications. Please contact us for additional information about eductors layouts.

UPD (MIXING EDUCTORS)



MIXING EDUCTORS

UPD mixing eductors, whose design applies the "Coanda Effect", enable the circulation of large volumes of liquid. They are installed at the bottom of a tank and pressurized to spray the solution.

This flow creates a powerful negative pressure that allows to take in four times the liquid volume, mix it with a solution inside the nozzle and spray it back into the tank at a high speed. 1 HP pump and UPB mixing eductor can replace a 5 HP mixing eductor. UPD eductors offer a high mixing efficiency and are cost effective because they save energy and are resistant to wear and corrosion.

UPD eductors have the same technical features of the UPB models, but they come with a female thread connection.

■ Thread specification

BSPT, NPT

■ Materials

B31 AISI 316L Stainless steel

D6 PP, chemically bonded fiberglass

■ Max working temperature

LT 80°C (PP)

■ Typical applications

Liquids mixing in electroplating, automotive painting, chemical plants.

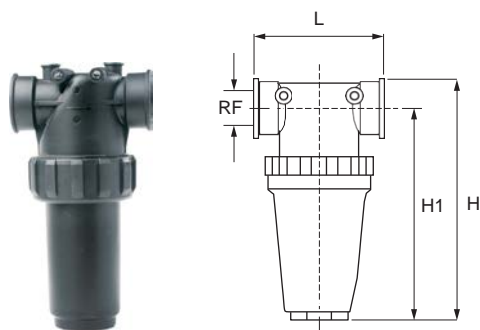
Code	RG inch	D mm	Flow rate at pressure (l/min) (bar)					D1 mm	L mm	L1 mm	WS mm
			1.0	2.0	3.0	4.0	5.0				
UPD E100 D6xx	3/4"	10	63	89	109	126	141	75	147	30	34
UPD H150 D6Sxx	1 1/2"	15	141	199	243	281	313	80	225	45	60
UPD H150 B31Sxx	1 1/2"	15	141	199	243	281	313	80	239	83	60
UPD K200 B31Sxx	2"	20	206	287	357	412	460	102	295	83	70

EX.: UPD E100 D6xx

xx = Thread codes

SG - BSP

SN - NPT



PLASTIC BODY FILTERS

VEH filters with plastic body are a rational and economic solution for most operating environments. The threaded coupling between bowl and head allows a quick filter cleaning and easy replacement of the cartridge and no need of tools. They have a high particles retention and are durable.

- Inlet/ Outlet thread size 1/2", 3/4", 1", 1 1/4", 1 1/2"
- Max steam pressure **LP** from 10 bar to 15 bar
- Capacity **LQ** 250 l/min
- Materials
 - D6** Polypropylene + 30% Glass fiber
 - E0** EPDM
 - B2** AISI 304 Stainless steel
- Typical application Filtering before spraying liquids

Code	RF inch BSPP	H mm	H1 mm	L mm	Q l/min	Cartridge			M mesh
VEH 0050 D21	1/2"	136	118	99	140	XVE	H050	DA2	32
VEH 0051 D21						XVE	H051	DA2	50
VEH 0052 D21						XVE	H052	DA2	100
VEH 0075 D21	3/4"	136	118	99	140	XVE	H050	DA2	32
VEH 0076 D21						XVE	H051	DA2	50
VEH 0077 D21						XVE	H052	DA2	100
VEH 0100 D21	1"	165	143	107	140	XVE	H053	DA2	32
VEH 0101 D21						XVE	H054	DA2	50
VEH 0102 D21						XVE	H055	DA2	100
VEH 0125 D21	1 1/4"	279	239	146	250	XVE	H060	DA2	32
VEH 0126 D21						XVE	H061	DA2	50
VEH 0127 D21						XVE	H062	DA2	100
VEH 0150 D21	1 1/2"	279	239	146	250	XVE	H060	DA2	32
VEH 0151 D21						XVE	H061	DA2	50
VEH 0152 D21						XVE	H062	DA2	100

HOW TO MAKE UP THE FILTER CODE

EX.: VEH 0050 D21

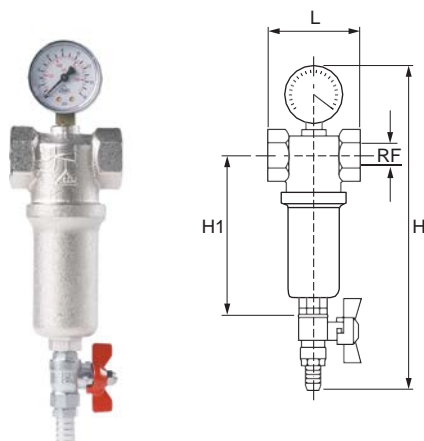
VEH 0050 D6

— MATERIAL — **D6** - Polypropylene

— THREAD —

— FILTER TYPE —

VEL (BRASS BODY FILTERS)



BRASS BODY FILTERS

VEL type filters with body in brass are the ideal solution for small plants requiring easy cleaning and maintenance. When necessary, simply open the valve at the bottom of the filter and the dirt contained inside the cartridge is easily expelled. A manometer on the filter head shows the outlet pressure hence pressure drop when clogged.

- Inlet/ Outlet thread size 1/2", 3/4", 1", 1 1/4", 1 1/2", 2"
- Max operation temperature **LT** 100°C
- Max steam pressure **LP** 16 bar
- Materials
 - T8** Nickel plated brass
 - B2** AISI 304 Stainless steel
- Typical application Filtering before spraying liquids

Code	RF inch BSPP	H mm	H1 mm	L mm	Q l/min	Cartridge		M mesh
VEL 0039 T8	3/8"	285	133	50	14	XVE	L171 B2	150
VEL 0051 T8	1/2"	288	136	56	25			
VEL 0076 T8	3/4"	287	132	67	38	XVE	L172 B2	
VEL 0101 T8	1"	295	137	80	72			
VEL 0126 T8	1 1/4"	343	169	92	118	XVE	L200 B2	
VEL 0151 T8	1 1/2"	356	179	110	178	XVE	L201 B2	
VEL 0201 T8	2"	362	179	110	213			

HOW TO MAKE UP THE FILTER CODE

EX.: VEL 0039 T8

VEL 0039 T8

— MATERIAL — **T8** - Nickel plated brass

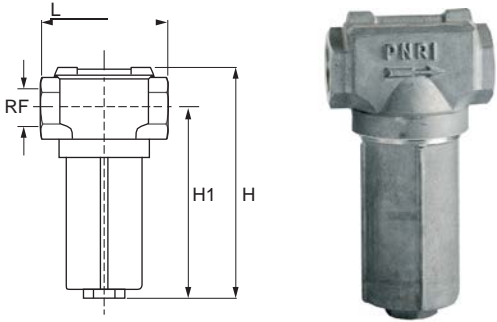
— THREAD —

— FILTER TYPE —

LARGE CAPACITY FILTERS

VEM filters are specially designed for high particle retention, easy maintenance and great efficiency in harsh operating conditions. Their bowl houses a large size cartridge for a longer operating life and reduced servicing times. The threaded connection to the filter body allows a quick removal with no need of tools. A plug placed at the bottom of the bowl allows to fit in a ball valve to purge the filter.

- Thread size1/2", 3/4", 1", 1 1/4", 1 1/2", 2", 2 1/2", 3"
- Wire net mesh size60, 80 mesh; other sizes available on request
- Max working pressureLP 20 bar
- MaterialsBody & bowlV1 Aluminium casting
CartridgeB2 AISI 304 Stainless steel
- Typical applicationFiltering before spraying liquids

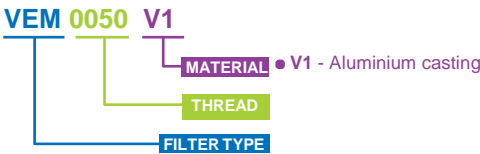


Mesh number	Free passage mm
30 - 32	0.6 - 0.58
50	0.3
60	0.25
75	0.2
80	0.18
100	0.15
150	0.1
200	0.075

Code	RF inch BSPP	H mm	H1 mm	L mm	LP bar	Q l/min	Cartridge	M mesh	W kg
VEM 0050 V1	1/2"	210	152	105	40	70	XVE M075 B2	60	0.9
VEM 0051 V1							XVE M076 B2	80	
VEM 0075 V1	3/4"	210	152	105	40	95	XVE M075 B2	60	
VEM 0076 V1							XVE M076 B2	80	
VEM 0100 V1	1"	210	152	105	40	140	XVE M075 B2	60	
VEM 0101 V1							XVE M076 B2	80	
VEM 0125 V1	1 1/4"	270	210	140	30	280	XVE M150 B2	60	1.6
VEM 0126 V1							XVE M151 B2	80	
VEM 0150 V1	1 1/2"	270	210	140	30	315	XVE M150 B2	60	
VEM 0151 V1							XVE M151 B2	80	
VEM 0200 V1	2"	400	318	200	10	750	XVE M300 B2	30	5.6
VEM 0201 V1							XVE M301 B2	60	
VEM 0202 V1							XVE M302 B2	80	
VEM 0250 V1	2 1/2"	400	318	200	10	810	XVE M300 B2	30	
VEM 0251 V1							XVE M301 B2	60	
VEM 0252 V1							XVE M302 B2	80	
VEM 0300 V1	3"	400	318	200	10	1050	XVE M300 B2	30	
VEM 0301 V1							XVE M301 B2	60	
VEM 0302 V1							XVE M302 B2	80	

HOW TO MAKE UP THE FILTER CODE

EX.: VEM 0050 V1



FILTERS

("Y" STYLE FILTER) VEQ

"Y" STYLE FILTER

VEQ xxGF B3G filter is widely used in all types of nozzles filtering systems. It allows for quick cleaning and replacement with no need of tools.

- Inlet/ Outlet thread size1/2" 3/4" 1"
- Mesh60 Mesh
- Max operation temperatureLT 40°C
- Max operation pressureLP 10 bar
- Max capacityLQ 80 l/min
- MaterialsBodyD6 PP, chemically bonded fiberglass
CartridgeB3 AISI 316l Stainless steel
- Typical applicationFiltering before spraying liquids

