

NETAFIM  
UNIVERSITY  
PROFESSIONAL  
WORKSHOP

# Valves

ALEX NELL  
Product Manager



# Main Facts

- We have the most complete product line in the marketplace.
- We have the most reliable product line in the marketplace.  
Warranty cost are virtually zero to Netafim and its customers.
- We have the longest warranty terms in the industry.

# Main Facts

- We have the best performance valve in terms of head loss and precise regulation, even under extreme conditions.
- We have the most customer focused technical support, pre and post sale, including application engineering support.
- We truly provide a lot of value, and yes, we feel we are worth it, therefore we sometimes are more expensive than our competition.

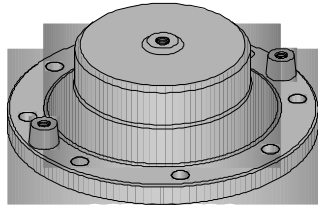
# Main Facts

- We have the most complete product line in the marketplace.

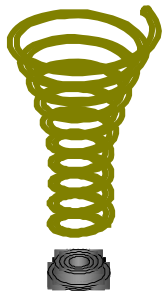
<u>Marketplace</u>	<u>Product</u>
Greenhouse	S-80
Drip – Large Blocks	PVC, IRON
Drip – Small Blocks	Nylon
Low Cost Automation	PBI, Single Valve Controller
Low Pressure	Special Diaphragms
High Pressure	Bronze

# Main Parts

Simple structure containing just few parts!

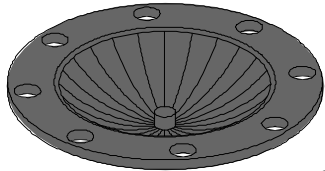


Bonnet (control chamber):  
Easy and simple assembly  
and dis-assembly.

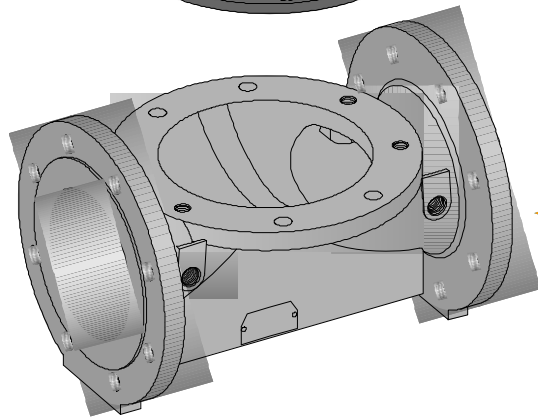


Spring:  
Allows closure from a fully  
open position.

Spring seat.



Diaphragm:  
Flexible and reinforced.



Body:  
Various materials,  
plastic and metal valves.

Main parts

Operation

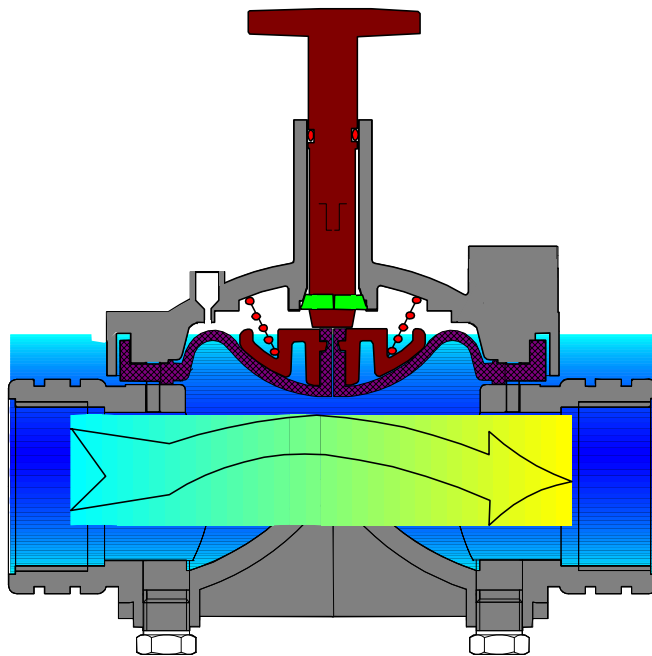
Regulation

Specifications

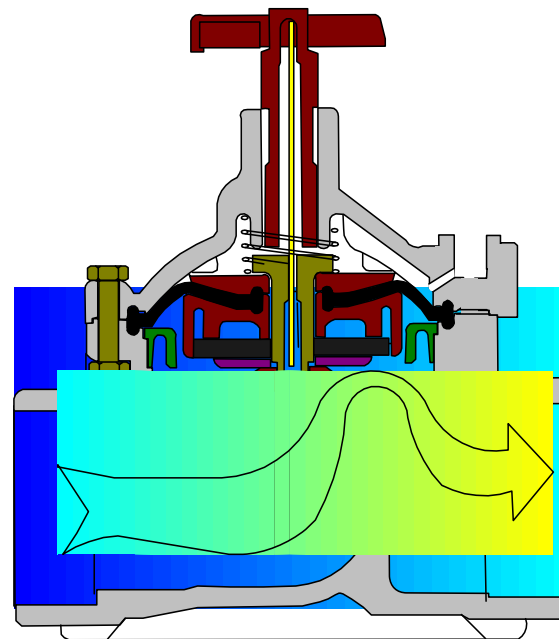
F & B

# Headloss Differences – Plastic Valves

Diaphragm type  
Smooth flow.  
Low head losses

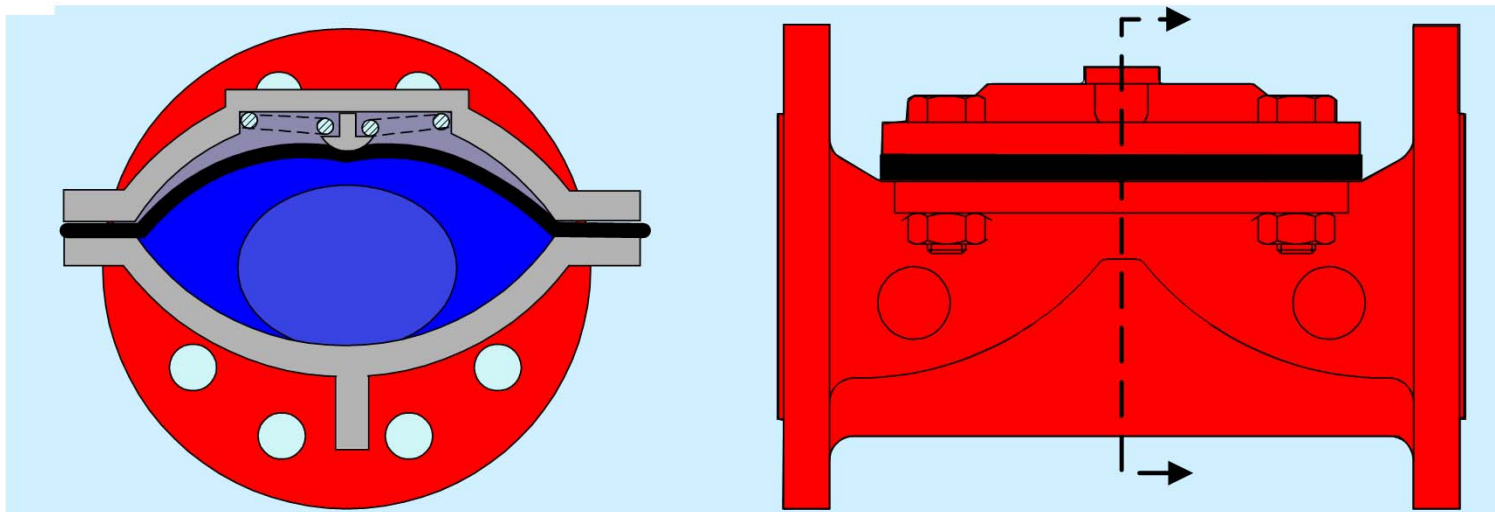


Disc/Plug type  
Turbulent flow.  
High head losses

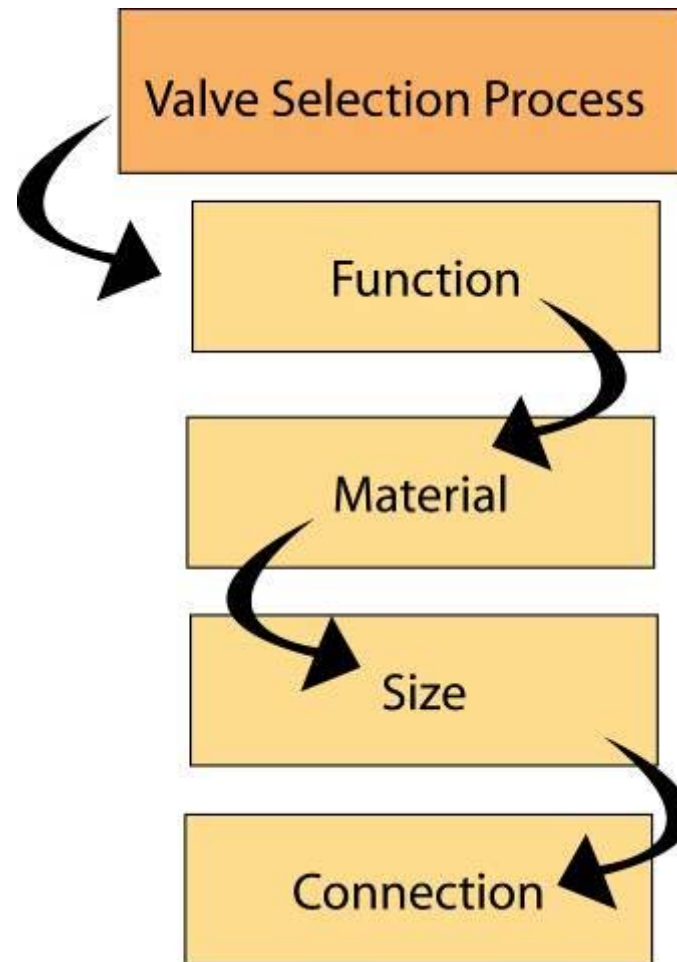


# Regulation

- Superb low flow regulation ability. Due to the diaphragm flexibility, the water-passage section area is changing according to the flow rate.
- Minimal head-losses in the fully open valve.



We have the widest selection of functions, materials, sizes and options





# Available Functions

B

M/EL

RC

M

PR

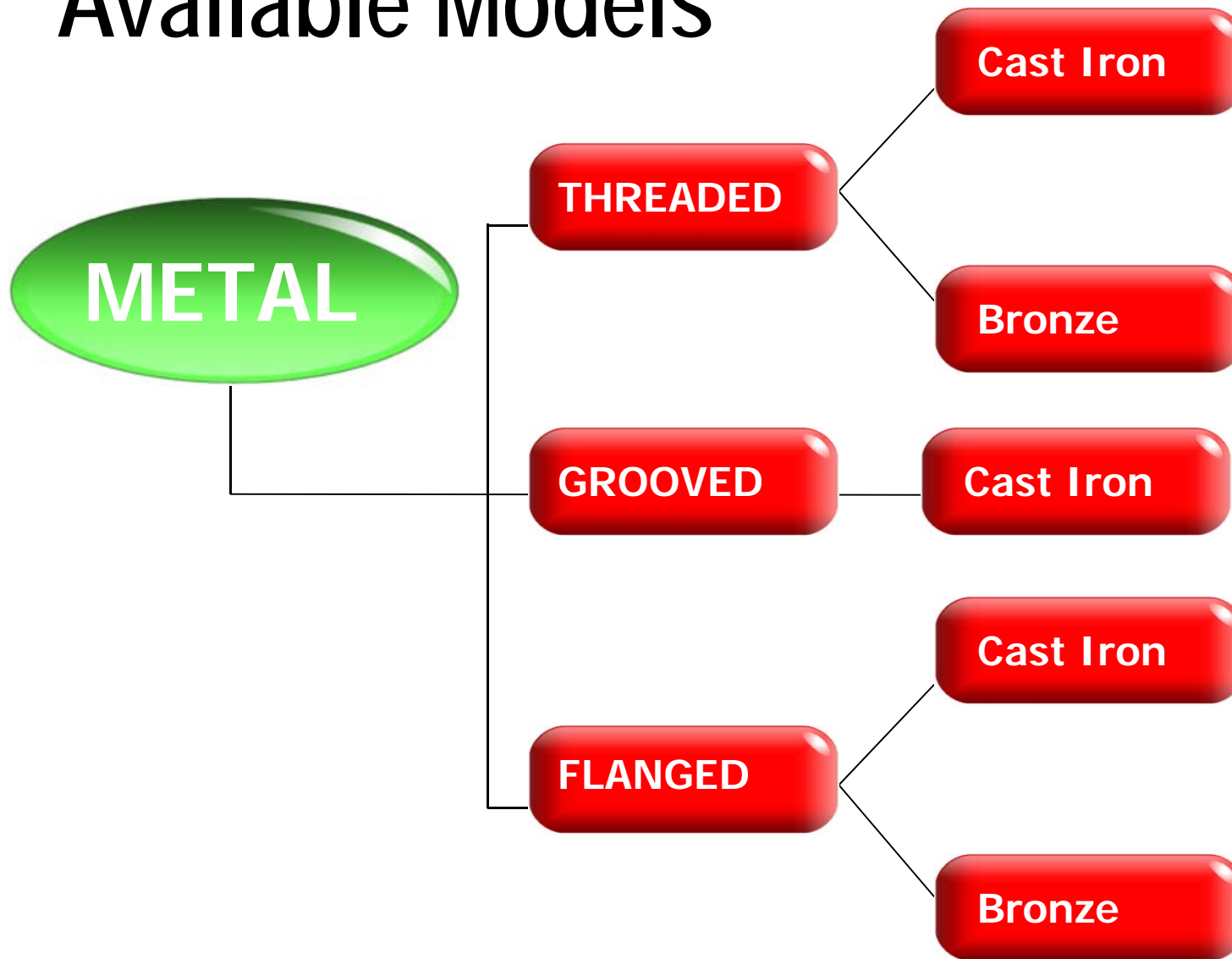
PR/EL

EL

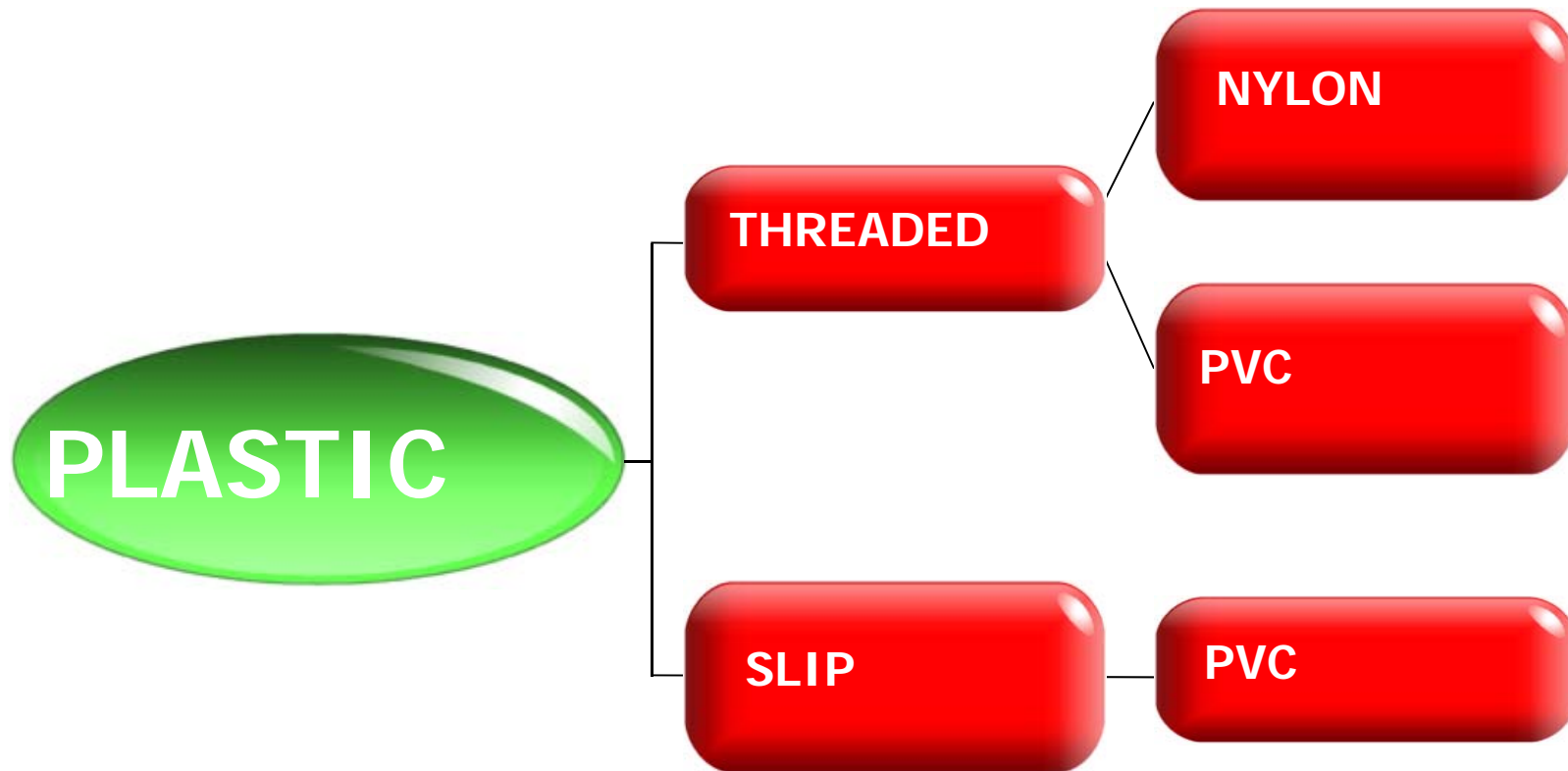
PS

PSNO

# Available Models



# Available Models



# Available Sizes



## MODELS AVAILABLE

MATERIAL		Nylon	PVC	PVC
CONNECTION		Threaded	Threaded	Slip
SIZES	1"	●		
	1 1/2"	●		
	2"	●		
	323	●		
	3"		●	●
	4"			●
	6"			●

Standard: Up to 12"  
 Special: Up to 32"

# Features & Benefits

- Simple internal structure.
- Low cost of spare parts when needed.
- Easy maintenance even for large valves.
- Superb reliability - no bearing and seals.
- The diaphragm is not guided and therefore will not be “stuck” open.
- Symmetric valve (can operate in two directions).



# Features & Benefits

- Can be used for a wide range of applications.
- Low flow regulation capability.
- Operation at a wide pressure range:  
3 psi to 230 psi.
- Operation in high flows with relatively low head-losses
- Control of different fluids: Water, Wastewater



# Limitations

- A minimal upstream pressure is required for operation.  
Choose your diaphragm carefully.
- Slow closure from the fully open position for large valves.  
Critical in ON/OFF application, no critical in regulation applications.

# Applications

- On/Off
- Pilot Operated Valves

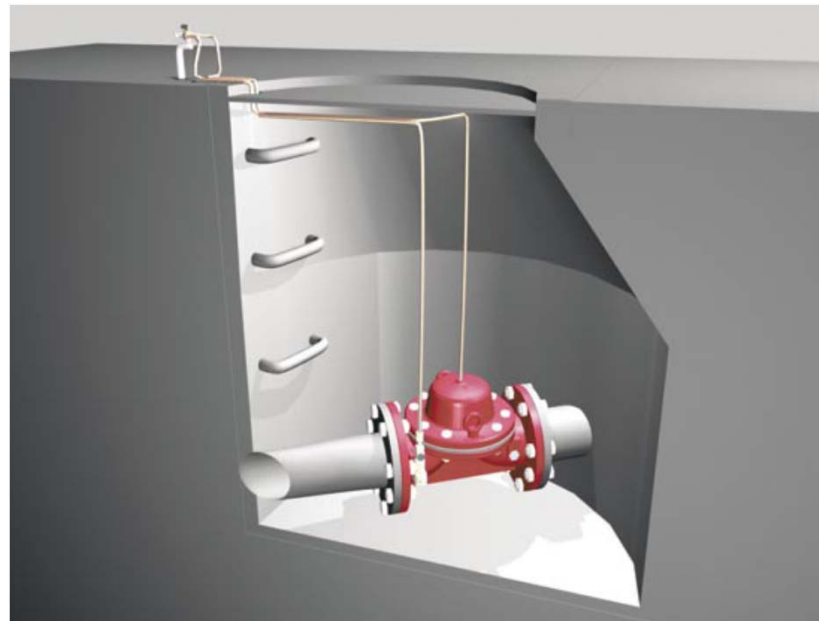


Control of inlet pressure  
Control of outlet pressure  
Control of flow  
Control of level in tanks and reservoirs



# Applications

On/Off: Manual Valves ("M")



# Applications

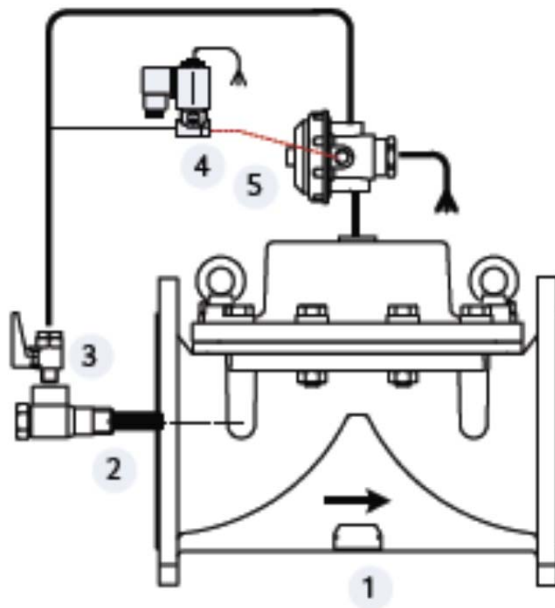
## On/Off: Manual Valves

### Design Considerations:

- Sizing is done based on head loss allowed (you must use a graph for that)
- Diaphragm: Choose a diaphragm based on upstream pressure and if valve is intended to remain open for long periods of time (LP)

# Applications

## On/Off: Electric Valves ("EL")



### Optional Control System Components:

- |                        |  |
|------------------------|--|
| 1 Main Valve           | 4 3/2 Solenoid valve   |
| 2 Self-flushing filter | 5 Accelerator relay (optional for valves larger than 150mm/6") |
| 3 Cock valve*          |  |

# 3 Way EL N.C. Valve

Suitable for: Drip irrigation Greenhouses

N.C. Valves are Standard



# On/Off: Electric Valves with Controller



# For more information...

Visit <http://www.netafimusa.com>