

ACT

JAN 2022

# ***EFFAST***

## *Electric & Pneumatic Actuation*



ORIGINE E QUALITA' CONTROLLATA  
BY NSF INTERNATIONAL



# Welcome to Effast

Effast by Polypipe is a well-established brand name that is recognised throughout both the industrial process market and construction industries for its market-leading range of thermoplastic pipework systems suitable for use within industrial applications.

Manufactured in Cicagna North Italy, the company now provides these components to customers all over the world and leads the way in the research and development of advanced new solutions that satisfy the specific needs of the market.

Supported by its large UK based manufacturing capabilities, Polypipe has developed Effast's comprehensive product portfolio such that it now offers a proven and effective solution to virtually any requirement. No matter what the project, the Effast range can offer the perfect combination of pressure pipe fittings, ball, butterfly, diaphragm and actuated valves, compression joints, adaptors and other fittings. Normally available in both metric and imperial dimensions these products are suited to many different applications in such areas as; food and beverage processing, chemical manufacture, water treatment, marine, spa and swimming pools, building technology and agriculture.

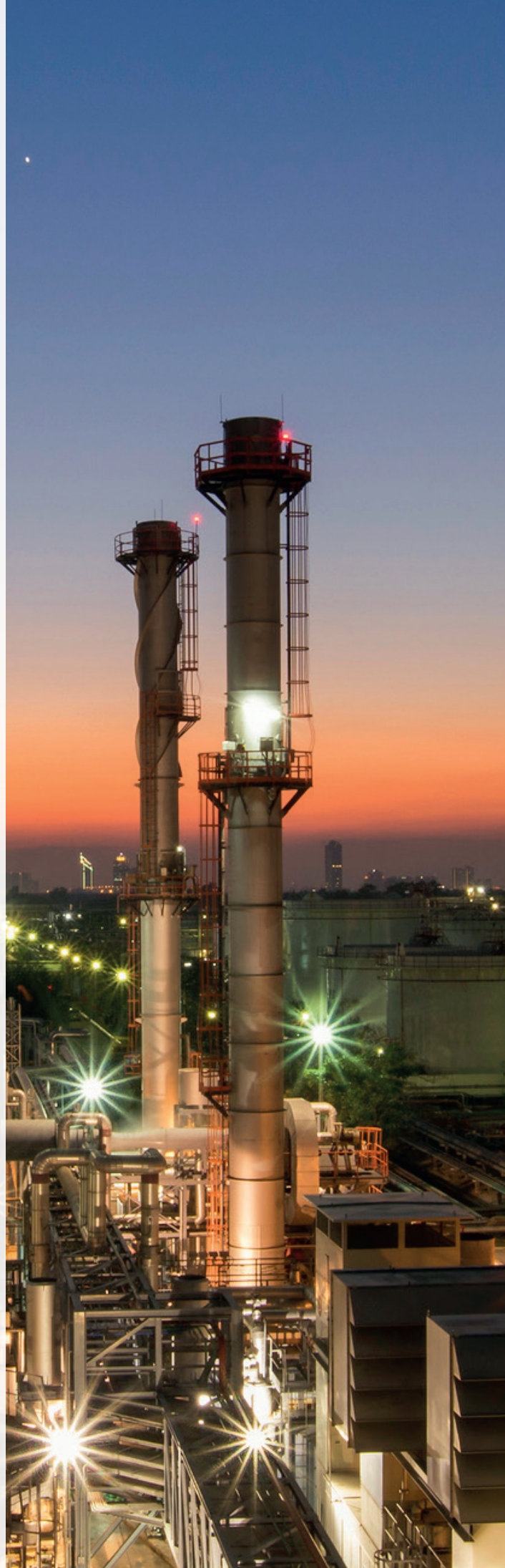
Outstanding performance and reliability have come to represent the hallmarks by which Effast products are recognised and with these products carrying accreditation and conforming to various European standards they can be specified with complete confidence. In addition, our manufacturing facilities in Italy are certified under the relevant ISO accreditations so you can be assured you'll receive not only outstanding performance, but outstanding quality too.

Dedicated to supporting its customers at every stage the company also complements its products and systems with full technical information and support service, while a nationwide distribution network means that products are readily available, even when needed next day. Get in touch and find out how we can support you on your next project.

## **EFFAST – Performance Under Pressure**

\*see back page for contact details

\*For more information on all the relevant accreditations, please visit our website [www.effast.com](http://www.effast.com)

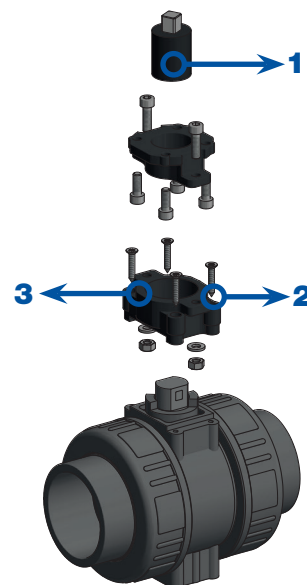


# Actuation & fastening / Attuazione e fissaggio

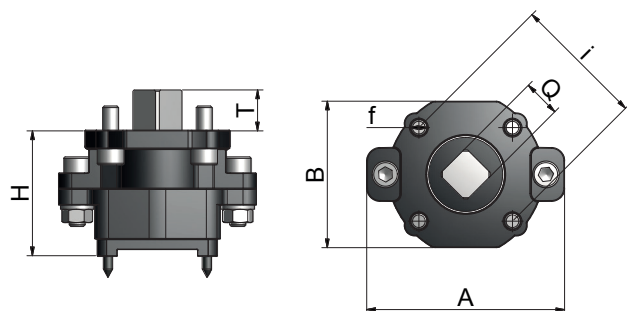
## Ball Valves/ Valvole a sfera

- Potable water approval / *Certificate per uso con acqua potabile.*
- Marine approval / *Certificate per applicazioni marine.*
- CE Approval / *Certificate CE*

- 1** Square head according to ISO 5211 / *Quadro asta secondo ISO 5211.*
- 2** Glass fibre reinforced PA6 support for electrical or pneumatical actuator (d. 16-63) / *Supporto in PA6 caricato fibra di vetro per motore elettrico e pneumatico (d. 16-63).*
- 3** Mounting flange according to ISO 5211 / *Flangia per accoppiamento attuatore secondo ISO 5211.*



### Dimensions / Dimensioni

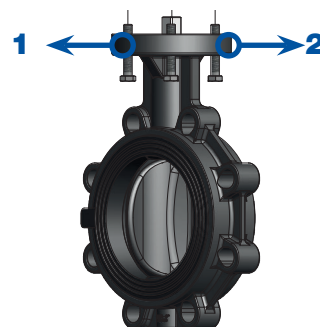


| DN    | A   | B  | H    | i  | f   | Q  | T(min) | ISO 5211 |
|-------|-----|----|------|----|-----|----|--------|----------|
| 16/20 | 74  | 55 | 38.5 | 50 | 6.4 | 14 | 12     | F05      |
| 25    | 74  | 55 | 41.5 | 50 | 6.4 | 14 | 12     | F05      |
| 32    | 74  | 55 | 32.5 | 50 | 6.4 | 14 | 12     | F05      |
| 40    | 74  | 55 | 47   | 50 | 6.4 | 14 | 12     | F05      |
| 50    | 74  | 55 | 48   | 50 | 6.4 | 14 | 12     | F05      |
| 63    | 74  | 55 | 50   | 50 | 6.4 | 14 | 12     | F05      |
| 75/90 | 105 | 65 | 52   | 70 | 8.5 | 17 | 18     | F07      |
| 110   | 105 | 65 | 57   | 70 | 8.5 | 17 | 18     | F07      |

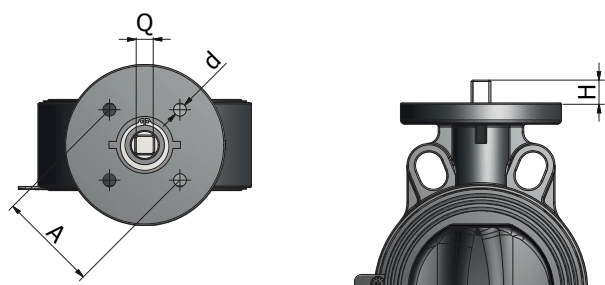
## Butterfly Valves / Valvole a farfalla

- Potable water approval / *Certificate per uso con acqua potabile.*
- Marine approval / *Certificate per applicazioni marine.*

- 1** Actuation standars ISO 5211 / *Standard di attuazione ISO 5211.*
- 2** Body designed to be actuated without additional kit / *Corpo con predisposizione per l'attuazione senza la necessità di kit aggiuntivi.*



### Dimensions / Dimensioni



| DN  | Q  | A      | H  | d    | ISO 5211 |
|-----|----|--------|----|------|----------|
| 65  | 14 | 70     | 16 | 9    | F07      |
| 80  | 14 | 70     | 16 | 9    | F07      |
| 100 | 14 | 70     | 16 | 9    | F07      |
| 125 | 14 | 70     | 16 | 9    | F07      |
| 150 | 17 | 70/102 | 19 | 9/11 | F07/F10  |
| 200 | 22 | 70/102 | 24 | 9/11 | F07/F10  |



# Electric Actuator / Attuatori Elettrici

XEL electric actuators is a completely multi-voltage compact actuator range for the control and regulation of ball valves or butterfly valves.

Gli attuatori elettrici XEL sono una gamma di attuatori compatti completamente multi-tensione per il controllo e la regolazione delle valvole a sfera o a farfalla.

- Available 12 V electric actuator and multivoltage electric actuator (24-240 VAC / 24-135 VDC).  
*Disponibili attuatori elettrici a 12V e attuatori multivoltaggio (24-240 VAC / 24-135 VDC).*



## GENERAL CHARACTERISTICS & MATERIAL / CARATTERISTICHE GENERALI e MATERIALI

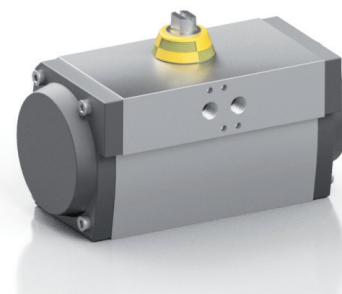
| SERIES /SERIE                                              | L020/H020                           | L035/H035                           | L055/H055 | L085/H085 | L140/H140 | L300/H300 |
|------------------------------------------------------------|-------------------------------------|-------------------------------------|-----------|-----------|-----------|-----------|
| Lid & body / Coperchio e corpo                             | Anticorrosive PA / PA anticorrosiva | Anticorrosive PA / PA anticorrosiva |           |           |           |           |
| Main external shaft / Asta                                 | Anticorrosive PA / PA anticorrosiva | SS / Acciaio Inox                   |           |           |           |           |
| External screws / Viti esterne                             | Stainless steel / Acciaio Inox      | SS / Acciaio Inox                   |           |           |           |           |
| Gears / Ingranaggi                                         | Steel and PA / Acciaio Inox e PA    | Steel and PA / Acciaio Inox e PA    |           |           |           |           |
| Visual position indicator / Indicatore di posizione visiva | PA                                  | PA                                  |           |           |           |           |
| Dome / Cupola                                              | PC                                  | PC                                  |           |           |           |           |
| Insulation / Isolamento                                    | Class B                             | Class B                             |           |           |           |           |
| (IEC60034) Service                                         | S4                                  | S4                                  |           |           |           |           |

# Pneumatic Actuator / Attuatori Pneumatici

XPN Series rack & pinion pneumatic actuators featuring a lighter and smaller aluminum body while retaining many options for automating ball and butterfly valves.

*La serie XPN è la nuova generazione di attuatori a pignone e cremagliera dotata di un corpo in alluminio più leggero e di dimensioni ridotte, mantenendo al tempo stesso molte opzioni per automatizzare le valvole a sfera e a farfalla.*

- Available spring return pneumatic actuator NC or NO and double acting pneumatic actuator.  
*Disponibili attuatori pneumatici a semplice effetto NC e NA e attuatori pneumatici a doppio effetto.*
- All external fasteners are corrosion-resistant stainless steel.  
*Tutti i dispositivi di fissaggio esterni sono in acciaio inossidabile resistente alla corrosione.*

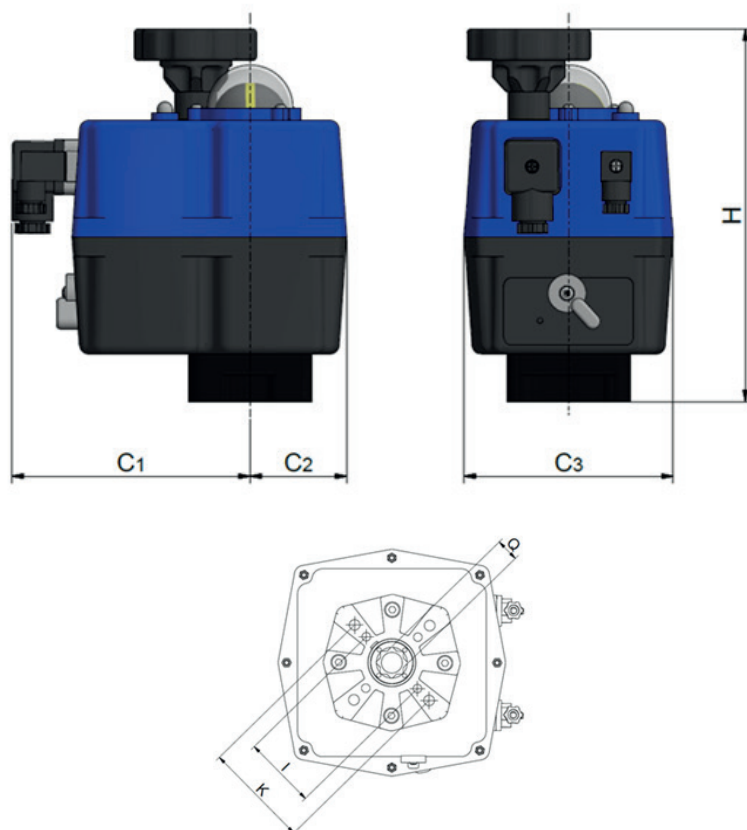


## MATERIALS / MATERIALI

|                                      |                                                                                  |
|--------------------------------------|----------------------------------------------------------------------------------|
| Actuator Body / Corpo dell'attuatore | Extruded Aluminum (6063 or 6005) / Alluminio estruso (6063 o 6005)               |
| Pinion / Pignone                     | Nickel Plated Carbon Steel / Acciaio al carbonio nichelato                       |
| Piston / Pistone                     | Anodized Aluminum / Alluminio anodizzato                                         |
| End Cap / Cappuccio                  | Die Cast Aluminum Epoxy Coated / Rivestimento epossidico in alluminio presoffuso |

# Technical data - Electric Actuator

## *Dati tecnici - Attuatore elettrico*



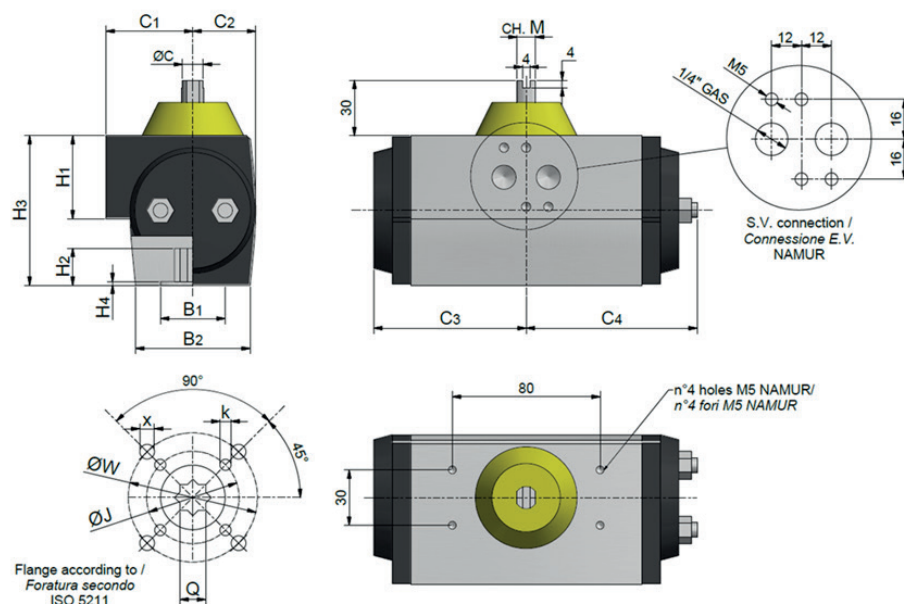
| Code            | Voltage (V)              | Operating speed | Max. oper. torque (Nm) | Max. break torque (Nm) | Ball Valves BK1 | ProFlow Valves |
|-----------------|--------------------------|-----------------|------------------------|------------------------|-----------------|----------------|
| XEL090.*020.Q** | 12 AC/DC or 24-240 AC/DC | 9 sec           | 20                     | 25                     | d.16 - 63       | -              |
| XEL090.*035.Q** | 12 AC/DC or 24-240 AC/DC | 9 sec           | 35                     | 38                     | -               | d.75           |
| XEL090.*055.Q** | 12 AC/DC or 24-240 AC/DC | 13 sec          | 55                     |                        | d.75 - 110      | d.90 - 110     |
| XEL090.*085.Q** | 12 AC/DC or 24-240 AC/DC | 29 sec          | 85                     |                        | -               | d.125/140      |
| XEL090.*140.Q** | 12 AC/DC or 24-240 AC/DC | 34 sec          | 140                    |                        | -               | d.160          |
| XEL090.*300.Q** | 12 AC/DC or 24-240 AC/DC | 58 sec          | 300                    |                        | -               | d.200/225      |

| Code            | C1  | C2  | C3  | H   | Q  | Q on request | I  | K   | ISO 5211    | ISO 5211 on request | (Kg) |
|-----------------|-----|-----|-----|-----|----|--------------|----|-----|-------------|---------------------|------|
| XEL090.*020.Q14 | 130 | 51  | 110 | 169 | 14 | 9 / 11       | 36 | 50  | F03/F04/F05 | F05/F07             | 1,8  |
| XEL090.*035.Q14 | 130 | 51  | 110 | 169 | 14 | 9 / 11       | 36 | 50  | F03/F04/F05 | F05/F07             | 1,9  |
| XEL090.*055.Q17 | 130 | 51  | 110 | 196 | 17 | 11 / 14      | 50 | 70  | F05/F07     | -                   | 2,4  |
| XEL090.*055.Q14 | 130 | 51  | 110 | 196 | 14 | 9 / 11       | 50 | 70  | F05/F07     | -                   | 2,4  |
| XEL090.*085.Q14 | 130 | 51  | 110 | 196 | 14 | 11 / 17      | 50 | 70  | F05/F07     | -                   | 3    |
| XEL090.*140.Q17 | 128 | 107 | 214 | 254 | 17 | 22           | 70 | 102 | F07/F10     | F12                 | 5,2  |
| XEL090.*300.Q22 | 128 | 107 | 214 | 252 | 22 | 17           | 70 | 102 | F07/F10     | F12                 | 5,2  |

\*= H: 24-240 V; \*= L: 12V

# Technical data - Pneumatic Actuator

## *Dati tecnici - Attuatore pneumatico*



| Code                  | C1 | C2 | C3    | C4    | H1 | H2   | H3    | H4  | B1   | B2    | ØW  | ØJ  | Q  | (Kg)  |
|-----------------------|----|----|-------|-------|----|------|-------|-----|------|-------|-----|-----|----|-------|
| XPNS090.MT05.S2.C.Q11 | 40 | 27 | 59,5  | 60,5  | 45 | 12,5 | 71    | 1,5 | 22   | 47    | 50  | 36  | 11 | 0,99  |
| XPNS090.MT07.S4.C.Q11 | 41 | 29 | 80    | 98    | 43 | 15   | 68    | 1,5 | 26   | 52,5  | 50  | 36  | 11 | 1,36  |
| XPNS090.MT15.S4.C.Q14 | 47 | 34 | 82,5  | 92,5  | 45 | 19   | 81    | 2   | 33   | 62    | 70  | 50  | 14 | 1,69  |
| XPNS090.MT17.S5.C.Q14 | 47 | 34 | 98,5  | 108,5 | 45 | 19   | 81    | 2   | 33   | 62    | 70  | 50  | 14 | 2,42  |
| XPNS090.MT25.S5.C.Q17 | 54 | 42 | 119,5 | 128,5 | 45 | 23   | 98    | 2   | 40,5 | 76,5  | 70  | 50  | 17 | 3,77  |
| XPNS090.MT30.S5.C.Q17 | 62 | 52 | 115   | 126   | 45 | 23   | 117   | 2   | 40,5 | 90,5  | 70  | 50  | 17 | 4,88  |
| XPNS090.MT45.S4.C.Q22 | 73 | 72 | 175,5 | 191,5 | 45 | 30   | 168,5 | 3   | 56,5 | 98,5  | 102 | 70  | 22 | 13,21 |
| XPNS090.MT50.S4.C.Q27 | 91 | 90 | 180,5 | 200   | 45 | 31   | 202   | 3   | 54,5 | 124,5 | 125 | 102 | 27 | 21    |
| XPND090.MT05.Q11      | 40 | 27 | 59,5  | 60,5  | 45 | 12,5 | 71    | 1,5 | 22   | 47    | 50  | 36  | 11 | 0,91  |
| XPND090.MT17.Q14      | 47 | 34 | 98,5  | 108,5 | 45 | 19   | 81    | 2   | 33   | 62    | 70  | 50  | 14 | 2,18  |
| XPND090.MT20.Q17      | 54 | 42 | 88,5  | 97,5  | 45 | 19   | 98    | 2   | 35   | 76,5  | 70  | 50  | 17 | 2,15  |
| XPND090.MT30.Q17      | 62 | 52 | 115   | 126   | 45 | 23   | 117   | 2   | 40,5 | 90,5  | 70  | 50  | 17 | 4,15  |
| XPND090.MT35.Q22      | 66 | 65 | 123   | 138   | 45 | 30   | 154   | 3   | 40,5 | 95,5  | 102 | 70  | 22 | 6,45  |

| Code         | k      | x      |
|--------------|--------|--------|
| XPN*090.MT05 | M5x9   | M6x9   |
| XPN*090.MT07 | M5x8   | M6x10  |
| XPN*090.MT15 | M6x9   | M8x12  |
| XPN*090.MT17 | M6x9   | M8x12  |
| XPN*090.MT25 | M6x9   | M8x12  |
| XPN*090.MT30 | M6x9   | M8x12  |
| XPN*090.MT45 | M8x12  | M10x15 |
| XPN*090.MT50 | M10x15 | M12x18 |

\*= D: Double acting/Doppio effetto; \*= S: Spring return/ Semp



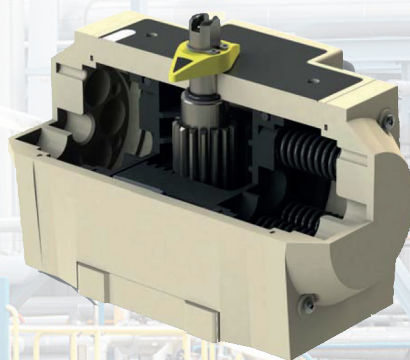
# Engineered polymer actuators / Attuatori in materiale polimerico

Effast has also two engineered polymer actuator series, with low weight and superior resistnace against harhs environments or aggressive chemicals. They offer an excellent quality/price ratio when compared to Stainless Steel Actuators suitable for the same applications.

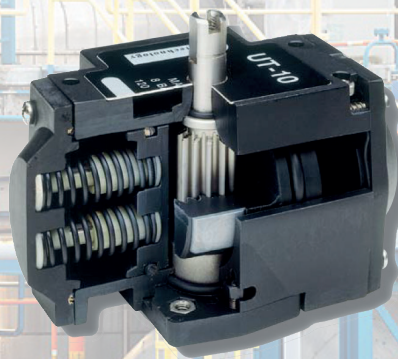
*Effast fornisce anche due linee di attuatori pneumatici realizzati con materiali polimerici, di peso ridotto ed al elevata resistenza agli agenti chimici aggressivi, con un ottimo rapporto qualità prezzo se confrontati con attuatori in acciaio INOX destinati agli stessi impieghi.*

- Available spring return pneumatic actuator NC or NO and double acting pneumatic actuator with non metallic material (spring are epoxy coated).  
*Disponibili attuatori pneumatici a semplice effetto NC e NA e attuatori pneumatici a doppio effetto con cartucce molla precomprese vincolate senza l'uso di materiali metallici (molla in acciaio verniciata con vernice epossidica).*
- Pinion with anti-blowout protection in both directions  
*Pignone con protezione antiesplusione.*
- Lower female pinion with double square according to ISO 5211/DIN 3337 standards, for valve assembly  
*Foratura di fissaggio del pignone femmina inferiore a doppio quadro realizzata secondo le norme ISO 5211/DIN 3337 per il montaggio della valvola.*
- Upper drilling for accessories and upper pinion machining according to NAMUR VDI/VDE 3845 standards  
*Foratura superiore, per il fissaggio degli accessori, ed estremità superiore del pignone secondo le norme NAMUR VDI/VDE 3845.*
- Solenoid valve connection according to NAMUR VDI/VDE 3845 made with an insert in alloy UNI 5076 (ASTM B 179) coated with hight corrosion resistance material; Air connections are 1/4" GAS or 1/4" NPT  
*Foratura di interfaccia con elettrovalvola secondo norme NAMUR VDI/VDE 3845 con inserto in lega UNI 5076 (ASTM B 179) con protezione anticorrosiva; connessione aria 1/4" GAS o 1/4" NPT.*
- Supply: air (lubricated if possible), hydraulic oil or water, 1-8 bas (15-120 psi)  
*Alimentazione con aria (possibilmente lubrificata), olio idraulico, acqua emulsionata, 1-8 bar.*
- Standard working temperature: -20°C - 80°C ( -4°F + 176°F)  
*Temperatura standard di funzionamento: -20°C - 80°C.*
- 100% seal and running test carried out on electronic equipment.  
*Collaudo finale e di tenuta al 100% con apparecchiatura elettronica.*
- Both Technopolymer and GRPP have excellent resistance to general environmental contidions. However, for more aggressive conditions, each material has specific and distinct advantages  
*Tecnopolimero e Polipropilene offrono una eccellente resistenza alle normali condizioni ambientali. Tuttavia, nel caso di ambienti più aggressivi, ciascuno dei due materiali presenta caratteristiche distinte specifiche.*

Glass reinforced Polypropilene  
Polipropilene rinforzato fibra vetro



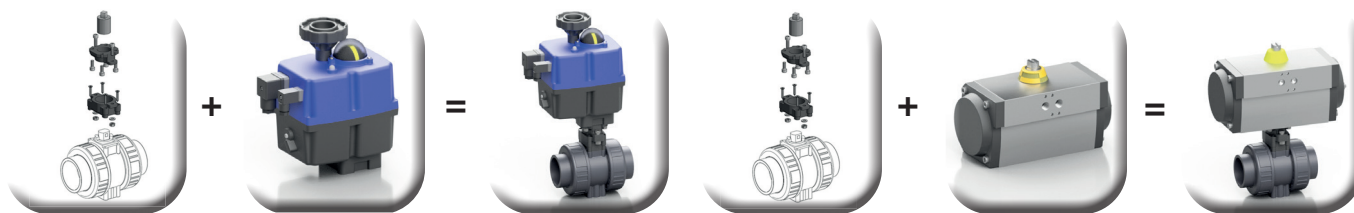
Technopolymer  
Tecnopolimero



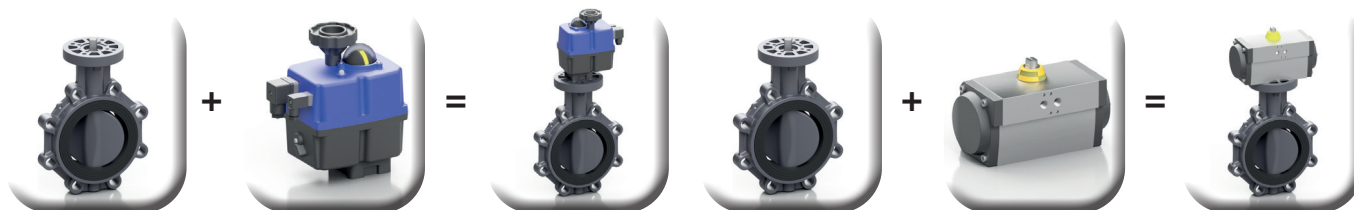
## MATERIALS / MATERIALI

|                                      |                                                                                                                       |
|--------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| Actuator Body / Corpo dell'attuatore | Techno-polymer or Glass reinforced polypropilene / Tecnopolimero o Polipropilene rinforzato fibra vetro               |
| Pinion / Pignone                     | Nickel Plated Carbon Steel or STAINLESS STEEL AISI 303/ Acciaio al carbonio nichelato o Acciaio inossidabile AISI 303 |
| Piston / Pistone                     | Die cast aluminium 5076 / Alluminio presoffuso UNI 5076                                                               |
| End Cap / Cappuccio                  | Techno-polymer or Glass reinforced polypropilene / Tecnopolimero o Polipropilene rinforzato fibra vetro               |

## Actuated ball valves / Valvole a sfera attuate



## Actuated butterfly valves/ Valvole a farfalla attuate



## Certifications / Certificazioni

### EFFAST Quality Certifications

Our technical experience in product innovation helps us have a range of products that are always kept up to date and in line with all the latest international standards. For this reason, the quality of the EFFAST product is the most prestigious in the international field and covers both technical standards and permits for use with drinking water and food fluids according to the regulations in force in various countries.

### Marchi Qualità EFFAST

La nostra esperienza tecnica nell'innovazione dei prodotti ci aiuta ad avere una gamma di prodotti sempre aggiornati e in linea con tutti gli ultimi standard Internazionali. Per questo motivo i marchi di Qualità del prodotto EFFAST sono i più prestigiosi in ambito internazionale e coprono sia le norme tecniche sia i permessi di uso con acqua potabile e fluidi alimentari secondo le norme vigenti nei vari paesi.



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