

Injection Mould Cooling Components



Injection Mould Cooling Components / Systems:

Cooling of Moulds; for providing suitable cooling, features of moulded material, material shape, mould structure and quantity of heat to be transferred should be known. In cooling with water, cooling channels should not be very close to mould surface. Otherwise, temperature changes can cause thermal shocks on mould surface. Cooling channels should not be so far from mould surface, because in this case, heat transfer should not be provided sufficiently.

Cooling channels may be created 2/3 times far of mould plate channel diameters. Water flowing should be provided to keep mould in certain temperature.

Effect of Cooling Time on Mould:

Injection Errors:

Tensile - Distortion
Sinking - Fragility
Cracking - Shrinkage
Visible Ejector Traces
Tension Whitening.

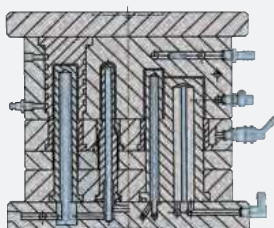
Solution Methods:

Cooling period should be increased and cooling system / channels should be controlled.

Quick-release Couplings:

Quick-release Couplings and fittings compatible with mould cooling systems and injection machines are commonly used in plastic - metal injection moulds. To use in water - air and oil flowing, different types are available and when desired mounting / demounting facilities on mould, Quick-release Couplings should be used.

For accurate and efficient cooling in mould cooling system, to choose Coupling / Fitting System to be most suitable to the temperature of your mould and mounting area in the correct way is important. Wide options related to this systems are presented at following pages. We have custom-made production service in all our Cooling Components.



Quick-release Couplings

Series: 590

Fields of Usage: It is used in cooling systems of plastic, zinc - aluminium diecasting moulds and steam lines - hot oil circuits, water, washing & cooling systems of machines.

Material Info:

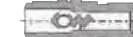
Body & Cover Valve = Brass / O-Ring = Viton

Spring - Ring & Ball = Stainless / Coupling Fitting = Brass

Operating Pressure = 0 - 15 bar / Flow Capacity = 9 mm

Operating Temperature = -5 / +180°

valved

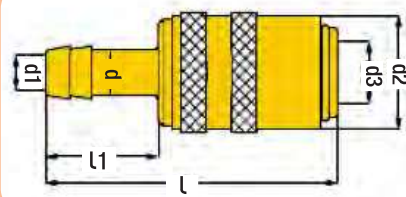


non-valved



Valved: Controlled water flow is provided. When fitting is removed, water flow is closed in coupling.

Non-valved: When fitting is removed, open circuit.

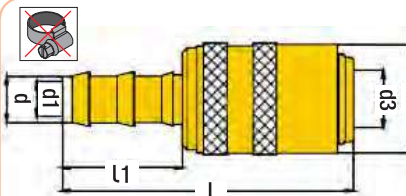


Quick-release Coupling

Code: 590HG (non-valved)

Code: 590HGB (valved)

| Order Example | d | d1 | d2 | d3 | L | L1 |
|---------------|----|-----|----|----|----|----|
| Code x 10 | 10 | 7.5 | 23 | 13 | 59 | 23 |
| Code x 13 | 13 | 10 | | | | |

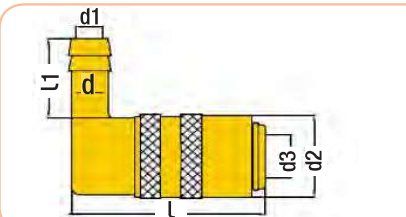


Quick-release Coupling

Code: 590FG (non-valved)

Code: 590FGB (valved)

| Order Example | d | d1 | d2 | d3 | L | L1 |
|---------------|----|-----|----|----|----|----|
| Code x 10 | 10 | 7.5 | 23 | 13 | 64 | 28 |
| Code x 13 | 13 | 10 | | | | |

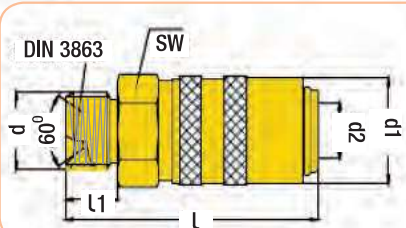


Quick-release Coupling / 90°

Code: 590LG (non-valved)

Code: 590LGB (valved)

| Order Example | d | d1 | d2 | d3 | L | L1 |
|---------------|----|-----|----|----|----|----|
| Code x 10 | 10 | 7.5 | 23 | 13 | 52 | 29 |
| Code x 13 | 13 | 10 | | | | |

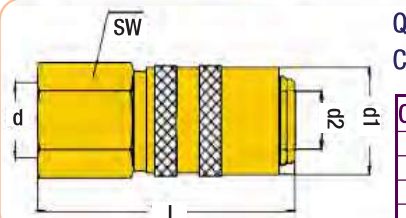


Quick-release Coupling / Male

Code: 590EG (non-valved)

Code: 590EGB (valved)

| Order Example | d | d1 | d2 | L | L1 | SW |
|---------------|----------|----|----|----|----|----|
| Code x 13 | BSP 1/4" | | | | | |
| Code x 17 | BSP 3/8" | 23 | 13 | 52 | 9 | 21 |
| Code x 21 | BSP 1/2" | | | | | |
| Code x 16M | M16x1.5 | | | | 10 | |

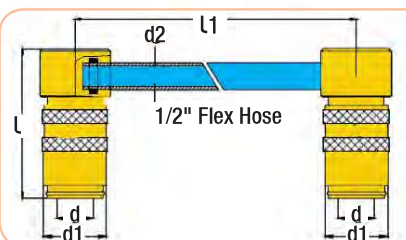


Quick-release Coupling / Female

Code: 590DG (non-valved)

Code: 590DGB (valved)

| Order Example | d | d1 | d2 | L | SW |
|---------------|----------|----|----|----|----|
| Code x 13 | BSP 1/4" | | | | 21 |
| Code x 17 | BSP 3/8" | 23 | 13 | 52 | 21 |
| Code x 21 | BSP 1/2" | | | | 24 |
| Code x 16M | M16x1.5 | | | | 21 |



Diverting Coupling Bridge

Code: 590KG (non-valved)

Code: 590KGB (valved)

| Order Example | d | d1 | d2 | L | L1 |
|---------------|----|----|------|----|-----|
| Code x 125 | | | | | 125 |
| Code x 250 | 13 | 23 | 10x1 | 52 | 250 |
| Code x 500 | | | | | 500 |

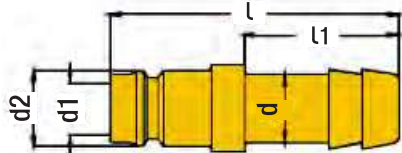


Fittings

Series: **590**

Compatible with Series-590
Quick-release Couplings

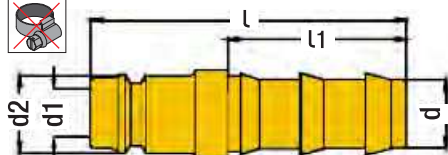
Material = Brass
Operating Pressure = 0 - 15 bar
Flow Capacity = 9 mm
Operating Temperature = -5 / +180°



Hose-tail Fitting

Code: **590HR**

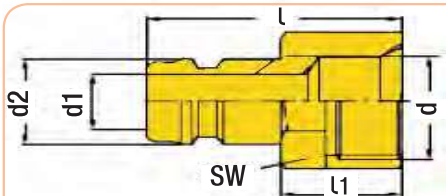
| Order Code | d | d1 | d2 | L | L1 |
|------------|----|----|----|----|----|
| 590HR.10 | 10 | 9 | 13 | 40 | 23 |
| 590HR.13 | 13 | | | 42 | 25 |



Push-lock Hose Fitting

Code: **590FHR**

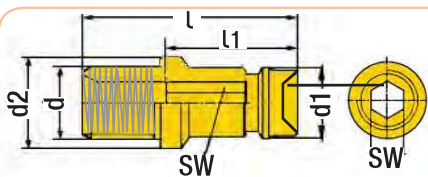
| Order Code | d | d1 | d2 | L | L1 |
|------------|----|----|----|----|----|
| 590FHR.10 | 10 | 9 | 13 | 43 | 28 |
| 590FHR.13 | 13 | | | 47 | |



Female Fitting

Code: **590DR**

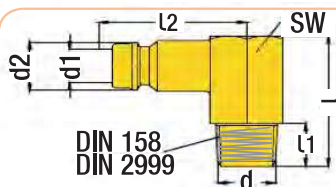
| Order Code | d | d1 | d2 | SW | L | L1 |
|------------|--------|----|----|----|----|----|
| 590DR.13 | G 1/4" | 9 | 13 | 16 | 28 | 9 |
| 590DR.17 | G 3/8" | | | 19 | | |



Male Fitting with Inner Hex

Code: **590AER**

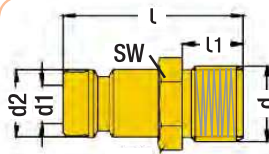
| Order Code | d | d1 | d2 | SW | L | L1 |
|------------|-----------|----|------|----|----|----|
| 590AER.13 | G 1/4" | 13 | 13.5 | 8 | 26 | 17 |
| 590AER.17 | G 3/8" | | 17 | | | |
| 590AER.M14 | M14 x 1.5 | | 14.5 | | | |



Fitting 90° Male Threaded

Code: **590ER**

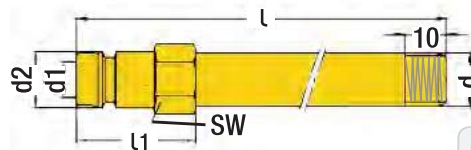
| Order Code | d | d1 | d2 | SW | L | L1 | L2 |
|--------------|-----------|----|----|----|----|----|----|
| 590ER.13x90 | G 1/4" | 9 | 13 | 15 | 34 | 10 | 25 |
| 590ER.17x90 | G 3/8" | | | 17 | | | |
| 590ER.M14x90 | M14 x 1.5 | | | 15 | | | |



Male Fitting

Code: **590-ORE**

| Order Code | d | d1 | d2 | SW | l | l1 |
|--------------|------------|----|----|----|----|----|
| 590-ORE.10 | G 1/8" | 9 | 13 | 14 | 29 | 10 |
| 590-ORE.13 | G 1/4" | | | | | |
| 590-ORE.17 | G 3/8" | | | 17 | | |
| 590-ORE.21 | G 1/2" | | | 21 | | |
| 590-ORE.M8 | M8 x 1.25 | | | 14 | | |
| 590-ORE.10.1 | M10 x 1.5 | | | | | |
| 590-ORE.M10 | M10 x 1.0 | | | | | |
| 590-ORE.M12 | M12 x 1.75 | | | | | |
| 590-ORE.M14 | M14 x 1.5 | | | 21 | | |
| 590-ORE.M16 | M16 x 1.5 | | | | | |



Male Fitting Long Type

Code: **590-ORE**

Note: Our custom-made production is available as per request.

| Order Code | d | d1 | d2 | SW | L | L1 |
|-----------------|------------|----|----|----|-----|----|
| 590-ORE.M8.60 | M8 x 1.25 | 9 | 13 | 14 | 60 | 20 |
| 590-ORE.M8.80 | | | | | 80 | |
| 590-ORE.M8.100 | | | | | 100 | |
| 590-ORE.M8.120 | | | | | 120 | |
| 590-ORE.M8.150 | | | | | 150 | |
| 590-ORE.M8.200 | | | | | 200 | |
| 590-ORE.M10.60 | M10 x 1.5 | 9 | 13 | 14 | 60 | 20 |
| 590-ORE.M10.80 | | | | | 80 | |
| 590-ORE.M10.100 | | | | | 100 | |
| 590-ORE.M10.120 | | | | | 120 | |
| 590-ORE.M10.150 | | | | | 150 | |
| 590-ORE.M10.200 | | | | | 200 | |
| 590-ORE.M12.60 | M12 x 1.75 | 9 | 13 | 14 | 60 | 20 |
| 590-ORE.M12.80 | | | | | 80 | |
| 590-ORE.M12.100 | | | | | 100 | |
| 590-ORE.M12.120 | | | | | 120 | |
| 590-ORE.M12.150 | | | | | 150 | |
| 590-ORE.M12.200 | | | | | 200 | |
| 590-ORE.10.60 | G 1/8" | 9 | 13 | 14 | 60 | 20 |
| 590-ORE.10.80 | | | | | 80 | |
| 590-ORE.10.100 | | | | | 100 | |
| 590-ORE.10.120 | | | | | 120 | |
| 590-ORE.10.150 | | | | | 150 | |
| 590-ORE.10.200 | | | | | 200 | |
| 590-ORE.13.60 | G 1/4" | 9 | 13 | 14 | 60 | 20 |
| 590-ORE.13.80 | | | | | 80 | |
| 590-ORE.13.100 | | | | | 100 | |
| 590-ORE.13.120 | | | | | 120 | |
| 590-ORE.13.150 | | | | | 150 | |
| 590-ORE.13.200 | | | | | 200 | |



Extension Fitting with Thread

Code: **590ARU**

| Order Code | d | L | SW |
|------------|--------|-----|----|
| ARU.18.60 | G 1/8" | 60 | 14 |
| ARU.18.80 | | 80 | |
| ARU.18.100 | | 100 | |
| ARU.18.150 | | 150 | |
| ARU.14.60 | G 1/4" | 60 | 16 |
| ARU.14.80 | | 80 | |
| ARU.14.100 | | 100 | |
| ARU.14.150 | | 150 | |