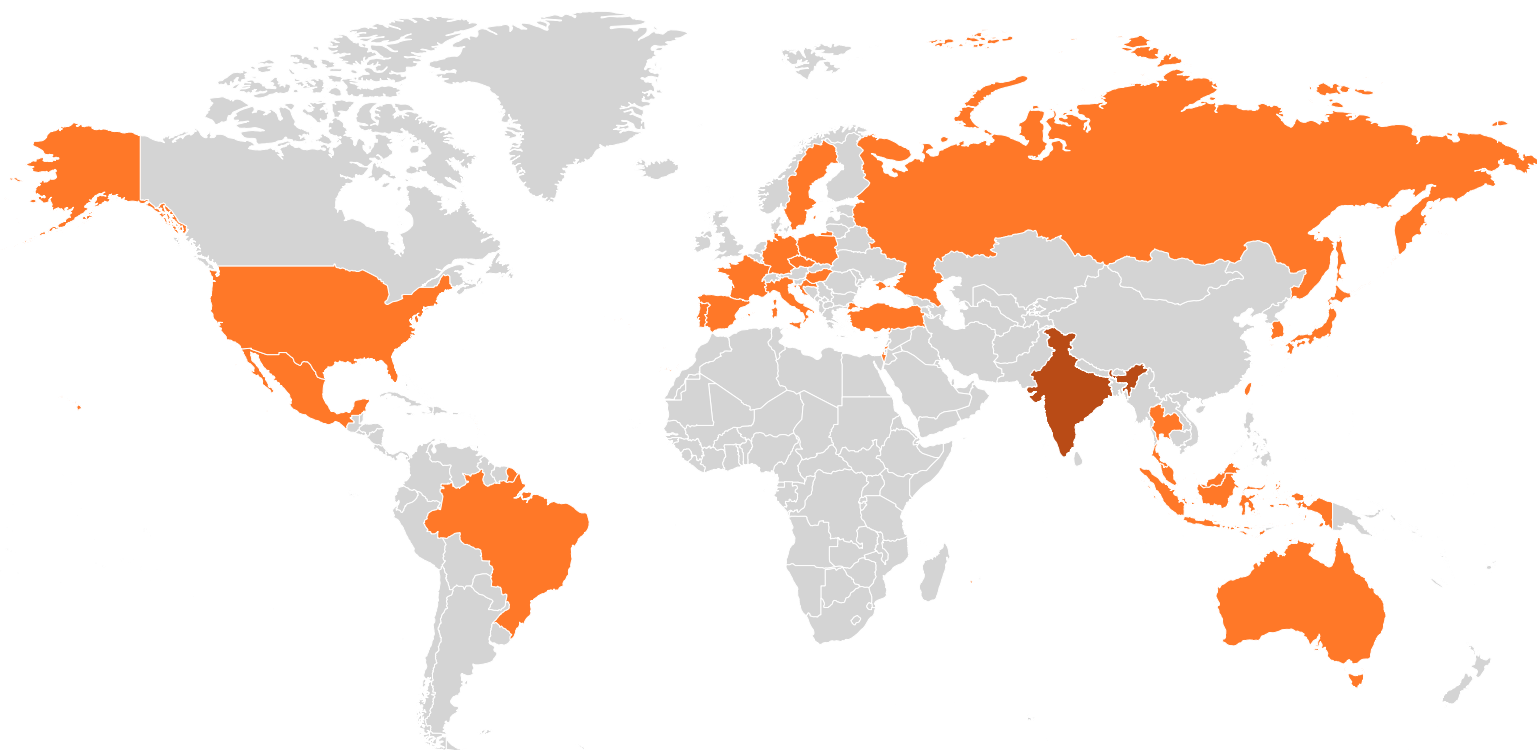


DIE-CASTING

technologies & consumables



GLOBAL PRESENCE



AMERICAS

USA
Mexico
Brazil

EUROPE

Germany
France
Spain
Portugal
Italy
Poland
Czech Republic
Hungary
Croatia
Sweden
Russia

ASIA

India
Japan
South Korea
Taiwan
Thailand
Malaysia
Indonesia
Israel
Turkey

OCEANIA

Australia

450+

satisfied
customers

23

countries

110

team
members

31

years

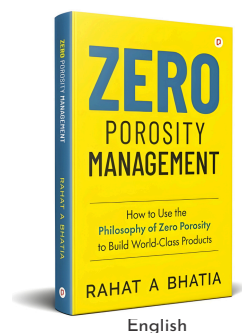
From the promoter



Hi,

I am Rahat A Bhatia,

- ✓ Asia's #1 die casting mold cooling expert
- ✓ With **33+ years of global experience** in die casting processes
- ✓ Helped 450+ die casters **reduce casting rejections and increase mold life** across 23 countries, including south east Asia, Europe & Americas
- ✓ Author of widely acclaimed book 'Zero Porosity Management'
- ✓ Regular tech-talks at ALUCAST (Aluminum casters association of India) on die-casting innovations
- ✓ Been subject speaker at NADCA USA
- ✓ Multiple globally patented solutions in die casting industry
- ✓ Contributing services as **Vice Chairman**, Alucast (North India)



English



Japanese

TECHNOLOGIES



Jet cooling machines



Online & Offline Monitoring systems



Vacuum machines



Water conditioning systems



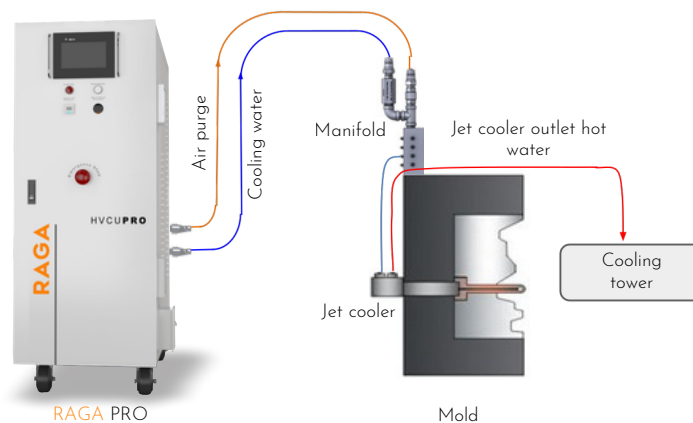
RAGA PRO

PRO is an entry level jet cooling machine, one of the first from Raga

This is for 20 pins and 2 systems configuration

Simple and effective machine to reduce shrinkage porosity in castings

Low maintenance and service cost





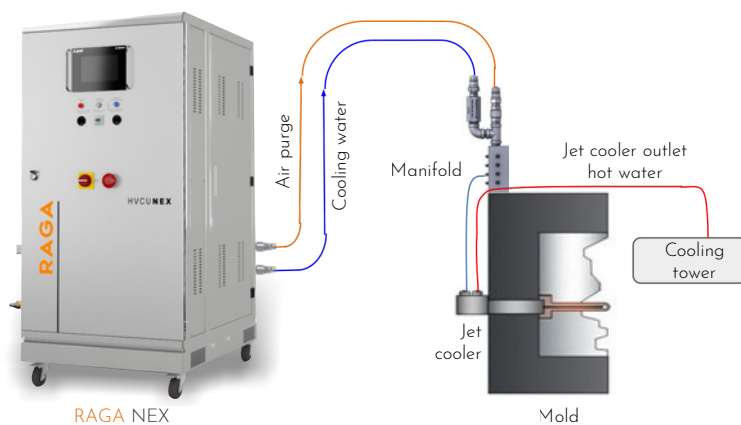
RAGA NEX

Proven & reliable jet cooling technology for minimizing shrinkage porosity in thin sections and around core pin in a die casted part

Casters trust this plug & play machine due to its optimal cost-performance and almost negligible maintenance

It comes from 20 pins 2 system to 100 pins 6 system configured

Machine conforms to international standards & spares





RAGA NEXplus

Introducing process controlled jet cooling for complex castings on die casting machines

Inbuilt temperature reducer & scale free system makes it truly CLOSED LOOP, minimizing blockage in cooling lines





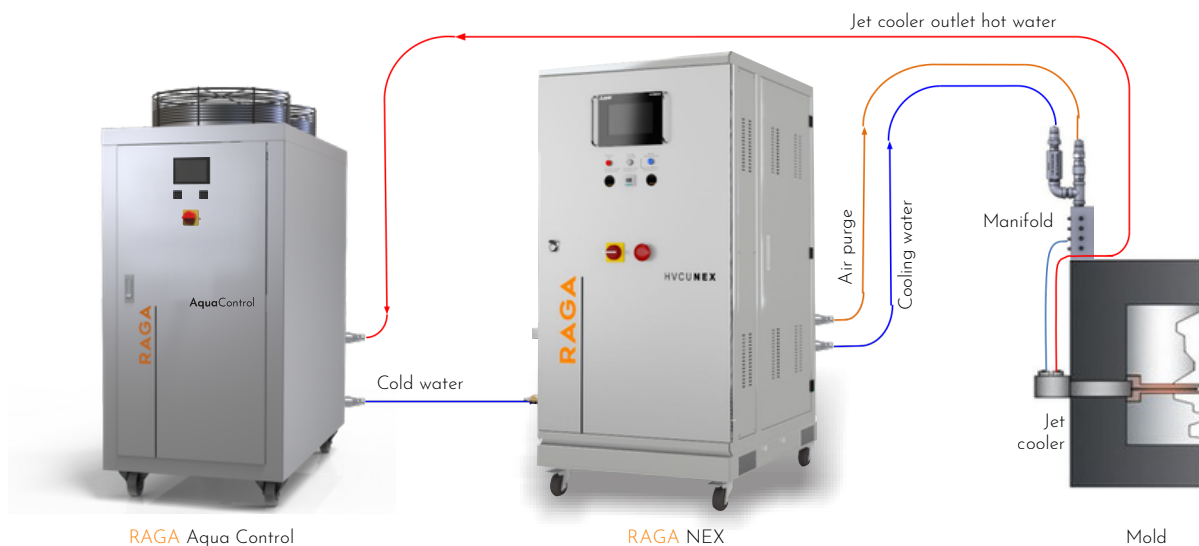
RAGA AquaControl

Water temperature & conductivity controller for jet, spot & line cooling

Close loop your existing or new jet cooling machine

Save water consumption cost and improve efficiency of mold cooling

Reduce scaling in cooling line and improve casting quality





RAGA MONITORING SYSTEM

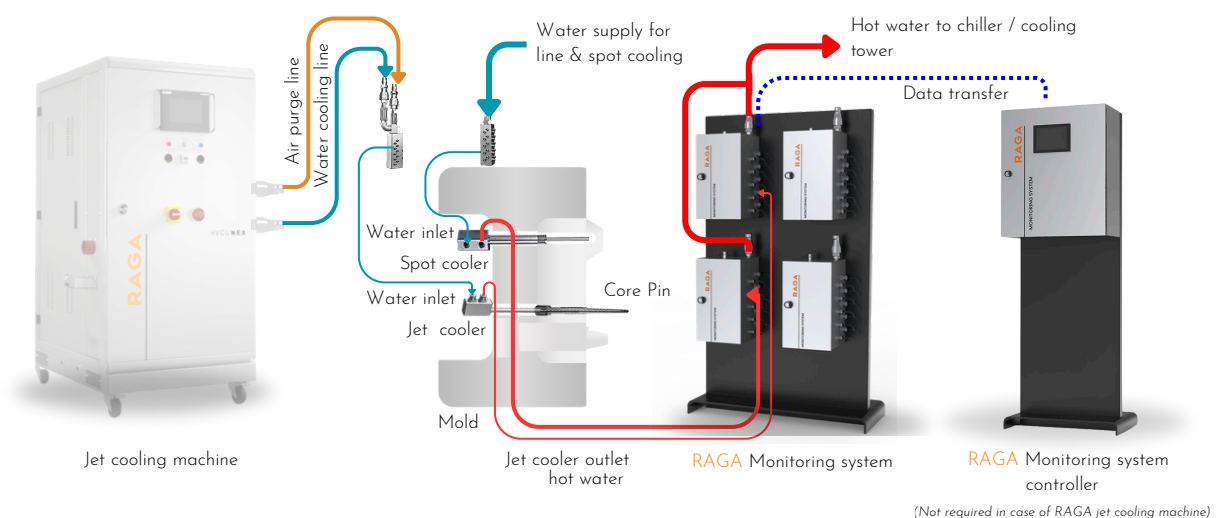
Brings traceability in jet, spot & line cooling

Standalone unit mounted near or on platen to monitor output water

Detect failures like blockage, breakage and leakage for individual core pin and cooling lines

Can be installed with any existing jet cooling machine

With the Raga jet cooling machine, the monitoring system transfers data directly to the unit, so no separate controller is required





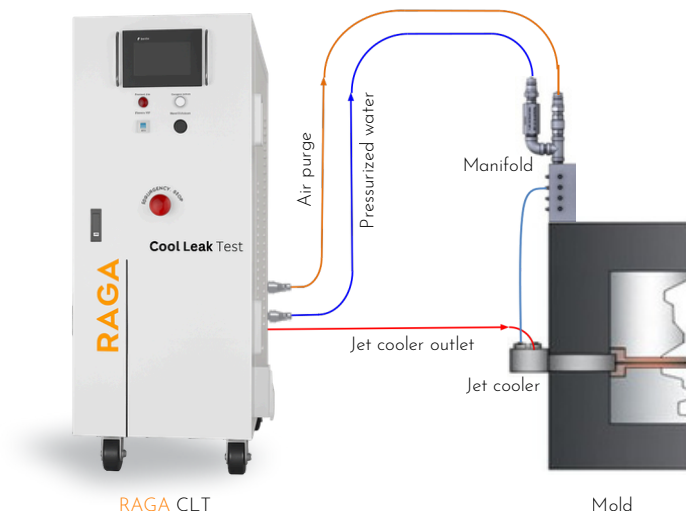
RAGA COOL LEAK TEST

Fully automated PLC-based control system to test cooling lines

Detects blockages, leaks, and breakages in cooling lines

Measure flow rate of outlet water from every cooling line

Air pressure drop test to detect leakage



Jet cooling machines



TECHNICAL SPECIFICATIONS	RAGA PRO	RAGA NEX	RAGA NEXplus
CORE PINS COOLED (Nos)	20	20 40 60 100	20 40 60 100
COOLING CHANNELS (Nos)	02	02 04 06	02 04 06
INBUILT TEMP CONTROLLED	X	X	✓
INBUILT SCALING CONTROL	X	X	✓
FLOW RATE MEASURE / CHANNEL	X	✓	✓
AIR & WATER PRESSURE MEASURE	✓	✓	✓
CORE PIN BREAKAGE DETECTION	X	✓	✓
CURVE PER CHANNEL DISPLAY	X	✓	✓
ERROR DIAGNOSTIC & RECORDING	✓	✓	✓
TOUCH SCREEN HMI	Delta 7"	Mitsubishi 7"	Mitsubishi 10"
DATA STORAGE & TRANSFER (MOLD/ PRODUCTION)	05/200	16/200	16/200
WATER TANK (L)	-	-	60-200
STANDARD / CERTIFICATION	-	CE	CE
PHASE LOSS PROTECTION DEVICES	X	✓	✓
PHASE REVERSAL PROTECTION	X	✓	✓
EARTH LEAKAGE PROTECTION & DETECTION	X	✓	✓
PROTECTION AGAINST RESIDUAL VOLTAGE, EARTH FAULT, RESIDUAL CURRENT CIRCUIT BREAK	X	✓	✓
OVER/UNDER VOLTAGE PROTECTION	X	✓	✓
DIMENSION (mm) (L x W x H)	1150 x 720 x 1550	1150 x 720 x 1550	1250 x 850 x 1650

Water conditioning systems



TECHNICAL SPECIFICATIONS	RAGA AquaControl 50	RAGA AquaControl 75	RAGA AquaControl 100
COOLING CAPACITY (kW)	17.5	26	35
TANK CAPACITY (L)	100	150	250
MINIMUM TEMPERATURE (°C)	16	16	16
TEMPERATURE MEASURE	✓	✓	✓
MINIMUM TDS (PPM)	20	20	20
AMOUNT OF WATER PROCESSED (L) (AT 200 PPM)	2000	2000	2000
TDS MEASURE	✓	✓	✓
POWER CONSUMPTION (kW)	6.7	8.5	10.5
DIMENSION (mm) (L x W x H)	1100 x 650 x 1500	1200 x 1150 x 1650	1200 x 1150 x 1650

Monitoring systems



TECHNICAL SPECIFICATIONS	RAGA MONITORING SYSTEM 04	RAGA MONITORING SYSTEM 08	RAGA MONITORING SYSTEM 16	RAGA CLT
NO. OF CONNECTIONS (Nos)	04	08	16	10
MAXIMUM WORKING PRESSURE (Bar)	20	20	20	20
MINIMUM FLOW RATE (lpm)	0.5	0.5	0.5	0.5*
MAXIMUM TEMPERATURE (°C)	100	100	100	NA
TUBE CONNECTION SIZE (mm)	4/6/8	4/6/8	4/6/8	4/6/8
POWER SUPPLY (V)	220; 1P	220; 1P	220; 1P	440; 3P
WATER TEST PRESSURE (Bar)	NA	NA	NA	16
DIMENSION (mm) (L x W x H)	250 x 470 x 450	250 x 470 x 450	250 x 500 x 600	1350 x 650 x 1600

* Please check with us during processing of your order

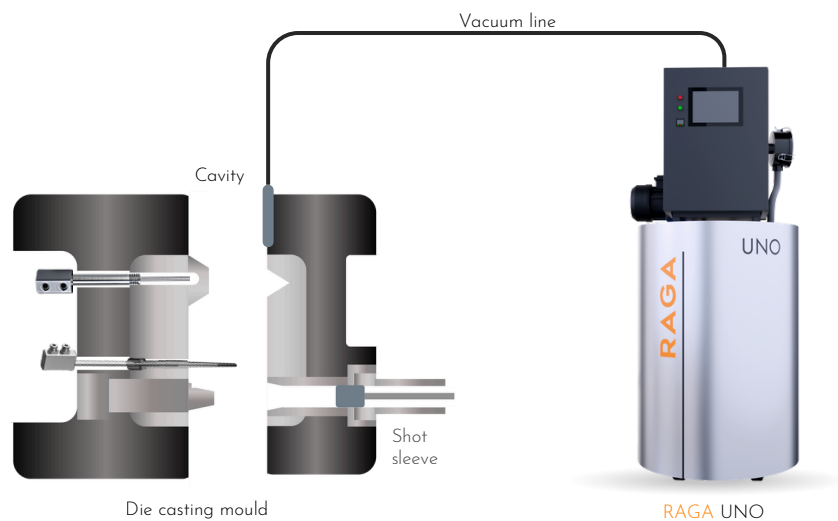


RAGA UNO

The low cost vacuum system UNO introduces you to the world of vacuum die casting

Easy to use and maintain

Plug & play machine serves up to 800 ton die casting machine

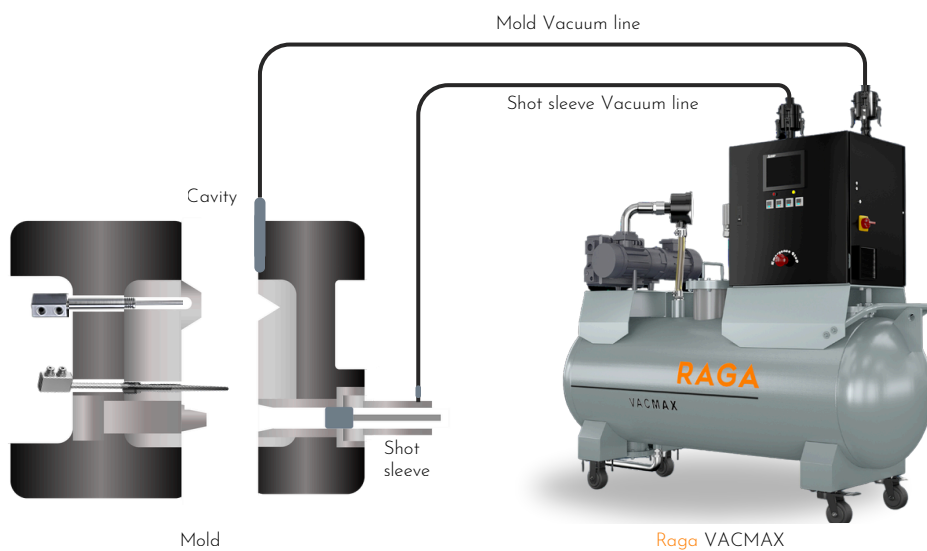




RAGA VACMAX

Efficiency and flexibility makes vacmax series, the preferred vacuum system for complex die castings

Two stage evacuation from shot sleeve & mold minimum gas porosity



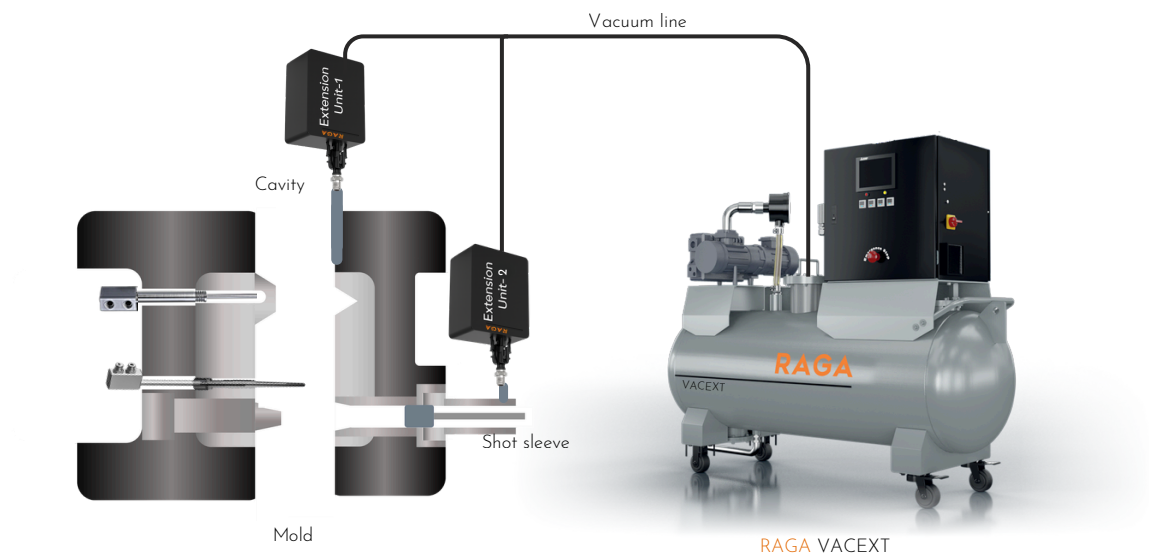


RAGA VACEXT

Extension unit mounted close to the mold reduces actuation time
and improves vacuum efficiency

Vacuum solution for high tonnage casting

Can connect upto 4 extensions unit with one VACEXT



Vacuum machines



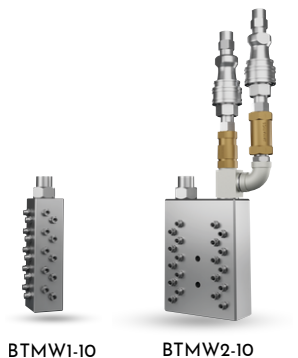
TECHNICAL SPECIFICATIONS	RAGA UNO	RAGA VACMAX	RAGA VACEXT
VACUUM TANK SIZE (L)	300	250 500 800	500 800 1000
PUMP CAPACITY (m3/h)	40	25 40 65	40 65 100 150
VACUUM CHANNELS (Nos)	01	02	Upto 04
VACUUM EVACUATION SECTION (mm2)	01x500	02x500	Upto 04x500
VACUUM PRESSURE IN TANK & CHANNEL MEASURE	✓	✓	✓
VACUUM LEAK TEST	X	✓	✓
CURVE PER CHANNEL DISPLAY	X	✓	✓
ERROR DIAGNOSTIC & RECORDING	X	✓	✓
TOUCH SCREEN HMI	Mitsubishi 7"	Mitsubishi 7"	Mitsubishi 7"
DATA STORAGE & TRANSFER MOLD/ PRODUCTION	16/200	16/200	16/200
DCM (t)	Up to 800	Up to 600 Up to 1400 Up to 1800	Up to 1400 Up to 1800 Up to 3200
DIMENSION (mm) (L x W x H)	820 x 800 x 1900	1500 x 550 x 1700 1450 x 800 x 2070 2185 x 864 x 2083	1450 x 800 x 2070 2185 x 864 x 2083 2100 x 1100 x 2400

MOLD COOLING OPTIMIZATION DEVICES



Pin breakage detection device

RAGA BLOCK TYPE MANIFOLD



Made of single block steel material making it more durable.

Connects all incoming or / and outgoing cooling tubes at one junction.

Block type manifold - One way : connects inlet supply & distributes to jet coolers.

Block type manifold - Two way : connects inlet & outlet supply to & from jet coolers.



RAGA VISUAL FLOW MANIFOLD

Outlet manifold which indicates blockage or breakage of core pins visually.

Rolling balls indicate flow of water & abnormality if any.

Simple & effective solution

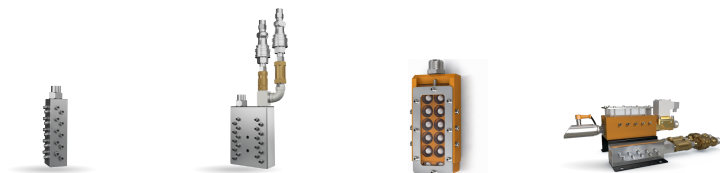


RAGA PIN BREAKAGE DETECTION DEVICE

Prevents accidents by detecting breakage of core pin or cooling channel after every shot.

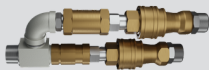
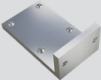
Stops jet cooling operation if abnormality found. Sturdy & easy to install.

Integrable with existing jet cooling machine.



TECHNICAL SPECIFICATIONS	RAGA Block Type Manifold One way 10	RAGA Block Type Manifold Two way 10	RAGA Visual Flow Manifold- 10	RAGA Pin Breakage Detecting Device-10
NOS OF TUBE CONNECTION TUBE	10	10+10	10	10
TUBE CONNECTION THREAD SIZE (Rc)	1/8	1/8	1/8	1/8
MAIN CONNECTION THREAD SIZE (Rc)	1/2	1/2	3/4	1/2
WORKING PRESSURE (Bar)	16	16	16	16
MAXIMUM WORKING TEMP. (°C)	100	100	100	100
POWER SUPPLY DC (V)	NA	NA	NA	24
DIMENSION (mm) (L x W x H)	180 x 55 x 55	360 x 105 x 100	200 x 110 x 95	460 x 200 x 225
ORDERING CODE	BTMW1-10	BTMW2-10	VFM-10	PBDD-10

Separately available for manifolds

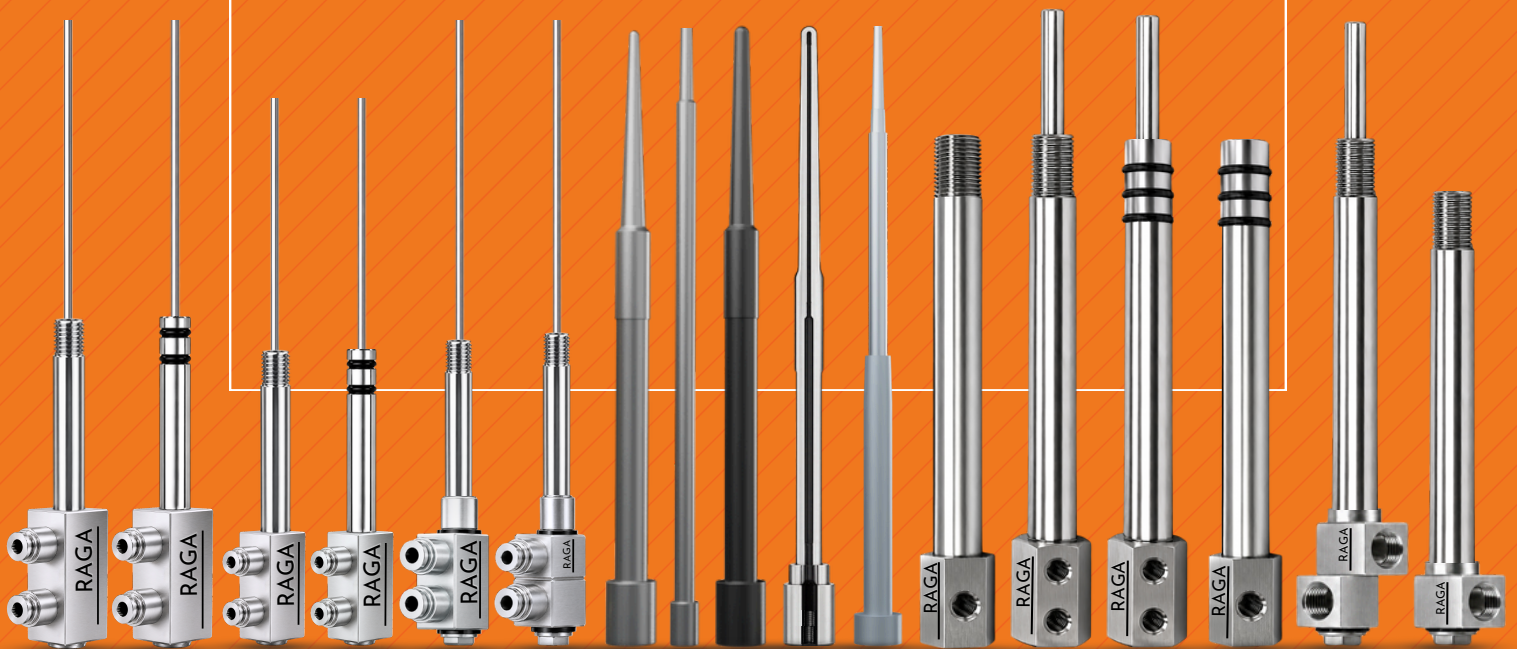
Description	Image	Details	Ordering Code	MOQ
Fluide diverting joint		G½" Water hose connection G½" BSPT Air hose connection With Non return valve	FDJ-012	1 Unit
			FDJ-034	
Main connection fitting		G½" thread both side	HAM-012	1 Pc
		G¾" thread both side	HAM-034	
One touch fitting		G¾" thread and 4mm tube connection	CP04	10 Pc
		G¾" thread and 6mm tube connection	CP06	
Fluoropolymer tube		Outer Ø4mm, inner Ø2.5mm, Blue	FPT-04-2.5-BL	20 m
		Outer Ø4mm, inner Ø2.5mm, Red	FPT-04-2.5-RE	
		Outer Ø4mm, inner Ø2.5mm, White	FPT-04-2.5-N	
		Outer Ø6mm, inner Ø4mm, Blue	FPT-06-04-BL	
		Outer Ø6mm, inner Ø4mm, Red	FPT-06-04-RE	
		Outer Ø6mm, inner Ø4mm, White	FPT-06-04-N	
O-ring			VFM-OR-01	10 Pc
Revolving ball			VFM-O-01	10 Pc
Solenoid valve			PBDD-SV-01	1 Pc
Pressure sensor			PBDD-PS-01	1 Pc
Sensor cable			PBDD-SC-01	1 Pc
Mounting bracket			BTM-MB-01	1 Pc
Mounting bracket			VFM-MB-01	1 Pc

DEVICE SELECTION CHART



		VISUAL FLOW MANIFOLD	PIN BREAKAGE DETECTION DEVICE	MOLD COOLING PERFORMANCE MONITORING SYSTEM
		INDICATES VISUALLY WATER FLOW	INDICATES PIN LEAKAGE / BREAKAGE	MEASURES FLOW RATE & TEMPERATURE FOR EACH LINE AND GENERATES DATA EVERY SHOT
DETECTION DURING SOLIDIFICATION	LEAKAGE	✓	X	✓
	BREAKAGE	✓	X	✓
	BLOCKAGE	✓	X	✓
DETECTION AFTER EJECTION	LEAKAGE	X	✓	✓
	BREAKAGE	X	✓	✓
	BLOCKAGE	X	✓	✓
MEASURE, RECORD & GENERATE ALARM	FLOW RATE	X	X	✓
	TEMPERATURE	X	X	✓
OPERATOR INDEPENDENT		X	✓	✓
PREDICTIVE INFORMATION		X	X	✓
CONNECTION WITH NON RAGA JET COOLING MACHINE		✓	✓	✓

MOLD CONSUMABLES



Jet coolers

Core pins

Spot coolers

RAGA CORE PIN

Made to your drawing

Precisely machined and ground pins
for forming holes in die castings

Solid core pins

Solid throughout, with no internal
cooling bore

Jet-cooled core pins

An internal bore receives the jet cooler
tube for cooling within the pin



Application

Jet-cooled pins pair with jet coolers to direct
water and air into the bore



Jet cooler fitted to a jet-cooled core pin

CORE PIN DETAILS

Materials and treatments

Material options

H13 / DIN 1.2344 / SKD61 / STD61

Heat treatment

Vacuum hardening
Three tempering cycles
44 - 46 HRC

Surface treatment

Gas nitriding
Optional PVD coating

Dimensional inspection

Pin dimensions checked against the drawing

Cooling bore specifications

For jet-cooled pins only
100% inspection of bore straightness
Bore centerline deviation: max 0.1 mm per 100 mm drilling depth



Section through a jet-cooled core pin

Bore diameter

2 - 6mm

Maximum bore length

Up to 600 mm

Length-to-diameter ratio

Up to 125

Maximum bore length depends on diameter and pin geometry
Minimum pin tip diameter 4mm, subject to required wall thickness

Surface treatment

Property	PVD coating	Nitriding
Treatment method	Cathodic arc	Gas nitriding
Treatment temp. (°C)	450-500	510-530
Heat resistance temp. (°C)	Up to 1000 Coating only	Up to 480 For continuous operation
Surface hardness (HV)	3000-3500 0.05 kgf	950-1200 0.1 kgf
Thickness / depth (µm)	4-6 Coating thickness	50-80 Nitriding depth
Water resistance	Excellent	Good
Heat resistance	Excellent	Good
Soldering resistance	Excellent	Good
Corrosion resistance	Excellent	Good With post-oxidation
Fatigue resistance	Excellent	Excellent

Note: Duplex treatment combines a nitrided supporting layer with a PVD coating.



RAGA JET COOLER

High-pressure water cooling and air purging for narrow passages in core pins and inserts

Fewer casting rejects

Targeted cooling helps reduce shrinkage porosity around core pins and inserts

Reduced soldering

Helps limit aluminum buildup on core pins, reducing mold downtime for polishing

Cooling beyond conventional reach

Reaches slender core pins and deep inserts where conventional cooling is difficult

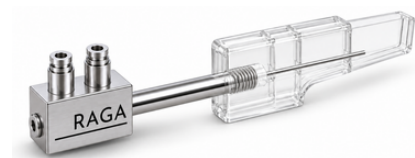
Solutions for confined tooling

Six variants and custom sizes accommodate tight spaces and complex mold layouts

Applications



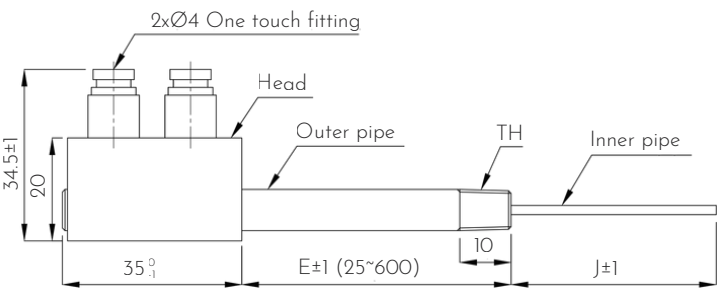
Thread type with core pin



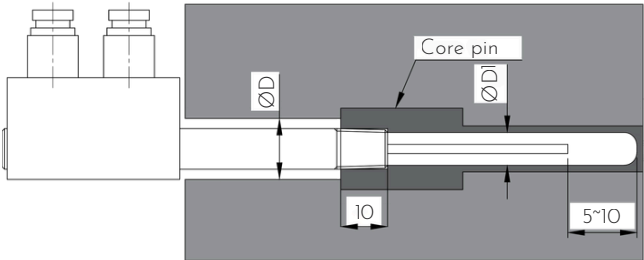
Thread type with insert

RAGA JET COOLER

Thread type JCT



Installation dimensions



Available sizes in mm

Outer Pipe			Inner Pipe		Die Hole	PinHole (Min)
OD	ID	TH	OD	ID	D	D1
4	2	M4x0.7	1.2	0.85	5	2
6	3	M6x1.0	1.2	0.85	7	2
			1.8	1.35		2.5
8	4	Rc1/16	1.2	0.85	9	2
			1.8	1.35		2.5
			2.3	1.8		3
10	5	Rc1/8	1.2	0.85	11	2
			1.8	1.35		2.5
			2.3	1.8		3
			2.8	2.3		4

Optional

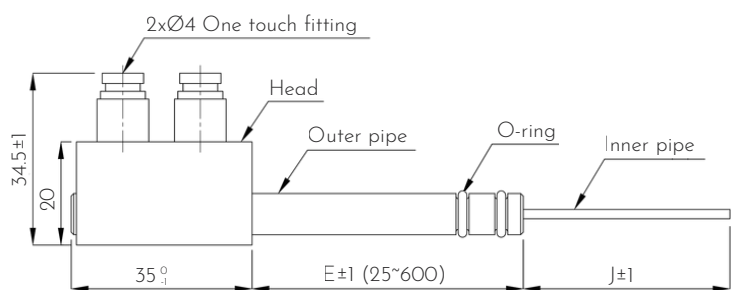
Description	Image	Details	Ordering Code
One touch fitting for tube connection		For 4mm tube	CP04018
		For 6mm tube	CP06018
Marking		Maximum 6 english letters and numbers -font size 3mm	M. XXXXXX E.g.M. JCP12

Ordering code example

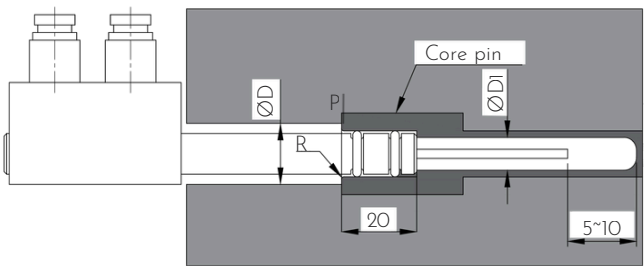
Part Type	Outer Pipe OD/ID	Inner Pipe OD/ID	E	J	Connector	Marking	Final Code
JCT	6/3	1.2/0.85	E50	J210	CP04018	M. JCP12	JCT-6/3-1.2/0.85-E50-J210-CP04018-M. JCP12

RAGA JET COOLER

O-ring type JCO



Installation dimensions



Available sizes in mm

Outer Pipe		Inner Pipe		Die Hole	Pin Hole (Min)	O-Ring Hole size
OD	ID	OD	ID	D	D1	P
6	3	1.2	0.85	7	2	6.3
		1.8	1.35		2.5	
8	4	1.2	0.85	9	2	8.2
		1.8	1.35		2.5	
		2.3	1.8		3	
10	5	1.2	0.85	11	2	10
		1.8	1.35		2.5	
		2.3	1.8		3	
		2.8	2.3		4	

Optional

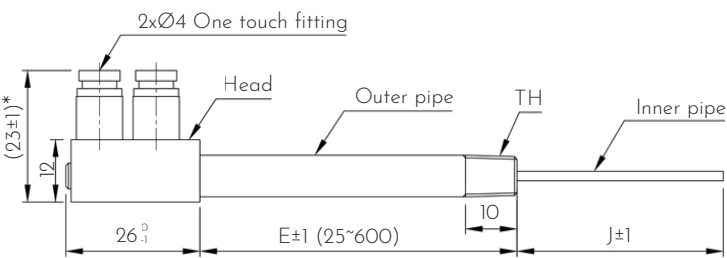
Description	Image	Details	Ordering Code
One touch fitting for tube connection		For 4mm tube	CP04018
		For 6mm tube	CP06018
Marking		Maximum 6 english letters and numbers -font size 3mm	M. XXXXXX E.g.M. JCP12

Ordering code example

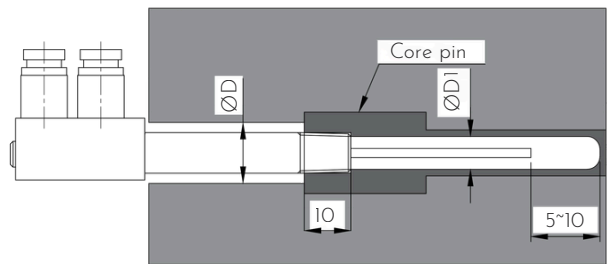
Part Type	Outer Pipe OD/ID	Inner Pipe OD/ID	E	J	Connector	Marking	Final Code
JCO	6/3	1.2/0.85	E50	J210	CP04018	M. JCP12	JCO-6/3-1.2/0.85-E50-J210-CP04018-M. JCP12

RAGA JET COOLER

Thread compact type JCT-C



Installation dimensions



Available sizes in mm

Outer Pipe			Inner Pipe		Die Hole	Pin Hole (Min)
OD	ID	TH	OD	ID	D	D1
4	2	M4x0.7	1.2	0.85	5	2
6	3	M6x1.0	1.2	0.85	7	2
			1.8	1.35		2.5

Optional

Description	Image	Details	Ordering Code
One touch fitting for tube connection		For 4mm tube	CP04M5
Marking		Maximum 6 english letters and numbers -font size 3mm	M. XXXXXX E.g.M. JCP12

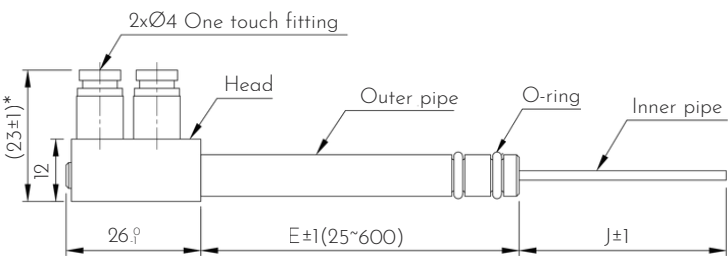
Ordering code example

Part Type	Outer Pipe OD/ID	Inner Pipe OD/ID	E	J	Connector	Marking	Final Code
JCT-C	6/3	1.2/0.85	E50	J210	CP04M5	M. JCP12	JCT-C-6/3-1.2/0.85-E50-J210-CP04M5-M. JCP12

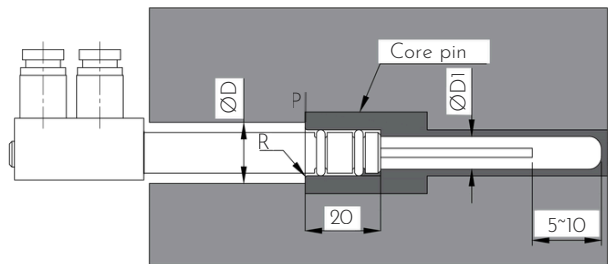
* Please check the dimension with us during processing of your order

RAGA JET COOLER

O-ring compact type JCO-C



Installation dimensions



Available sizes in mm

Outer Pipe		Inner Pipe		Die Hole	Pin Hole (Min)	O-Ring Hole size
OD	ID	OD	ID	D	D1	P
6	3	1.2	0.85	7	2	6.3
		1.8	1.35		2.5	

Optional

Description	Image	Details	Ordering Code
One touch fitting for tube connection		For 4mm tube	CP04M5
Marking		Maximum 6 english letters and numbers -font size 3mm	M. XXXXXX E.g.M. JCP12

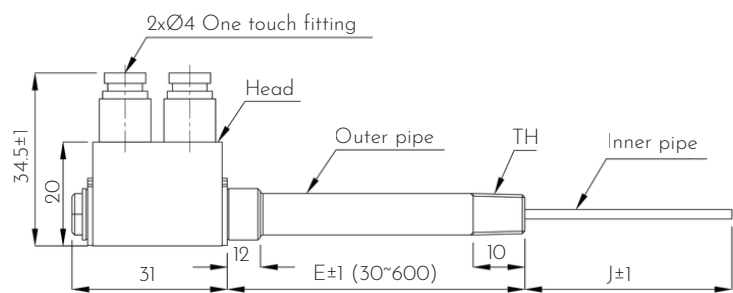
Ordering code example

Part Type	Outer Pipe OD/ID	Inner Pipe OD/ID	E	J	Connector	Marking	Final Code
JCO-C	6/3	1.2/0.85	E50	J210	CP04M5	M. JCP12	JCO-C-6/3-1.2/0.85-E50-J210-CP04M5-M. JCP12

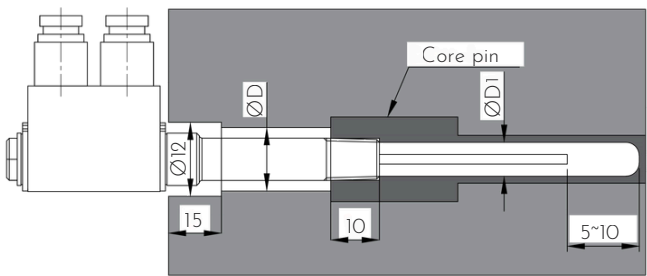
* Please check the dimension with us during processing of your order

RAGA JET COOLER

Rotating type JCR



Installation dimensions



Available sizes in mm

Outer Pipe			Inner Pipe		Die Hole	Pin Hole (Min)
OD	ID	TH	OD	ID	D	D1
4	2	M4x0.7	1.2	0.85	5	2
6	3	M6x1.0	1.2	0.85	7	2
			1.8	1.35		2.5
8	4	Rc1/16	1.2	0.85	9	2
			1.8	1.35		2.5
			2.3	1.8		3
10	5	Rc1/8	1.2	0.85	11	2
			1.8	1.35		2.5
			2.3	1.8		3
			2.8	2.3		4

Optional

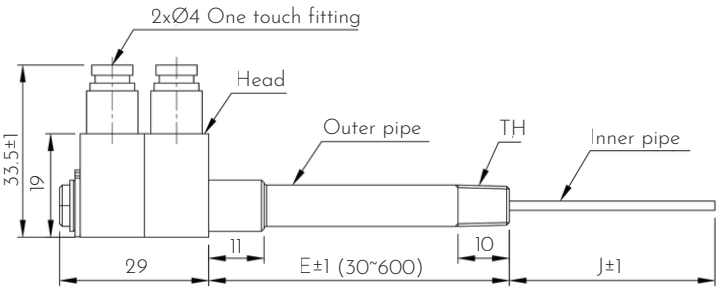
Description	Image	Details	Ordering Code
One touch fitting for tube connection		For 4mm tube	CP04018
		For 6mm tube	CP06018
Marking		Maximum 6 english letters and numbers -font size 3mm	M. XXXXXX E.g.M. JCP12

Ordering code example

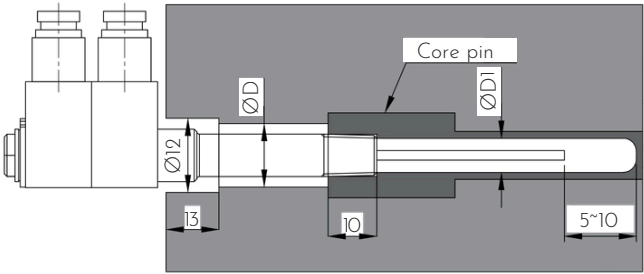
Part Type	Outer Pipe OD/ID	Inner Pipe OD/ID	E	J	Connector	Marking	Final Code
JCR	6/3	1.2/0.85	E176	J24	CP04018	M. JCP12	JCR-6/3-1.2/0.85-E176-J24-CP04018-M. JCP12

RAGA JET COOLER

Isolated type JCI



Installation dimensions



Available sizes in mm

Outer Pipe			Inner Pipe		Die Hole	Pin Hole (Min)
OD	ID	TH	OD	ID	D	D1
4	2	M4x0.7	1.2	0.85	5	2
6	3	M6x1.0	1.2	0.85	7	2
			1.8	1.35		2.5
8	4	Rc1/16	1.2	0.85	9	2
			1.8	1.35		2.5
			2.3	1.8		3
10	5	Rc1/8	1.2	0.85	11	2.5
			1.8	1.35		2.5
			2.3	1.8		3
			2.8	2.3		4

Optional

Description	Image	Details	Ordering Code
One touch fitting for tube connection		For 4mm tube	CP04018
		For 6mm tube	CP06018
Marking		Maximum 6 english letters and numbers -font size 3mm	M. XXXXXX E.g.M. JCP12

Ordering code example

Part Type	Outer Pipe OD/ID	Inner Pipe OD/ID	E	J	Connector	Marking	Final Code
JCI	6/3	1.2/0.85	E176	J24	CP04018	M. JCP12	JCI-6/3-1.2/0.85-E176-J24-CP04018-M. JCP12



RAGA SPOT COOLER

Localized mold cooling with flexible tubing connections

Fewer heat related rejects

Reduce localized casting defects by targeting hot stops in insert cavity

Simpler tube connections

Optional one-touch and hose nipple connectors simplify tube routing

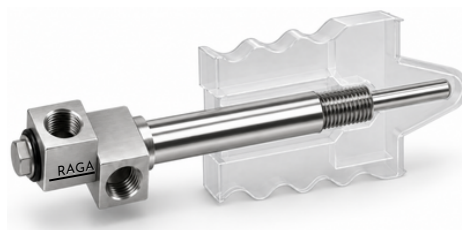
Less mold downtime

Stainless steel heads resist corrosion, lasting 50% longer than brass

Fits your cooling circuit

W1 single-port and W2 dual-port options suit different water return arrangements

Applications

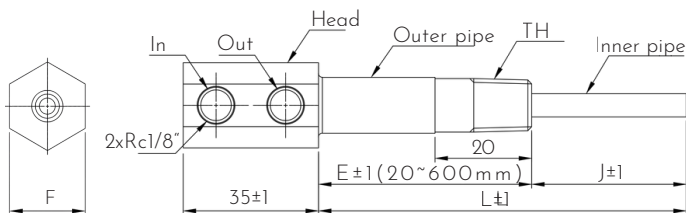


Thread type in insert cavity

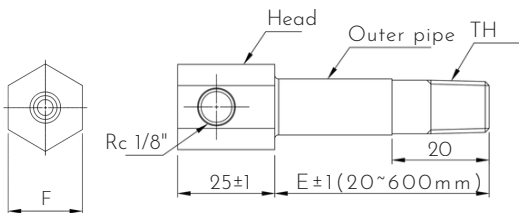
RAGA SPOT COOLER

Thread type Rc 1/8" head connection

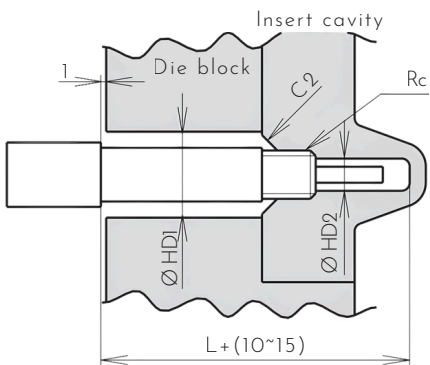
SCT-W2



SCT-W1



Installation dimensions



Available sizes in mm

Outer Pipe			Inner Pipe		Head Size	Die Block Hole	Insert Hole
OD	ID	TH	OD	ID	F	HD1	HD2
10.5	5.7	Rc1/8	4	2	17	15	6
13.8	7.8	Rc1/4	6	4	19	17	8
17.3	10.9	Rc3/8	8	6	21	22	12
21.7	16.1	Rc1/2	10	8	24	26	16

Optional

Description	Image	Details (For Rc 1/8" head connection)	Ordering Code
One touch connector		For 6mm tube	CP06018
		For 8mm tube	CP08018
Hose nipple connector		For 8mm tube	HN08018
Marking		Maximum 6 english letters and numbers font size 3mm	M. XXXXXX M. MC23

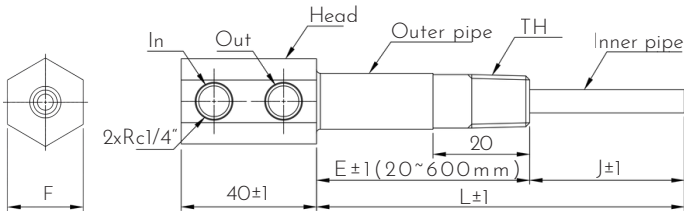
Ordering code example

Part Type	Rc	Outer Pipe OD/ID	Inner Pipe OD/ID	Head Size	E	J	Connector	Marking	Final Code
SCT-W2	Rc1/8	10.5/5.7	4/2	F17	E176	J135	CP06018	M. 09	SCT-W2-Rc1/8-10.5/5.7-4/2-F17-E176-J135-CP06018-M. 09
SCT-W1	Rc1/8	21.7/16.1	-	F24	E95	-	CP06018	M. MC23	SCT-W1-Rc1/8-21.7/16.1-F24-E95-CP06018-M. MC23

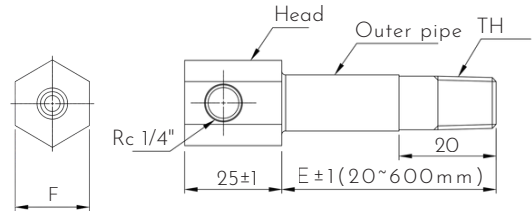
RAGA SPOT COOLER

Thread type Rc 1/4" head connection

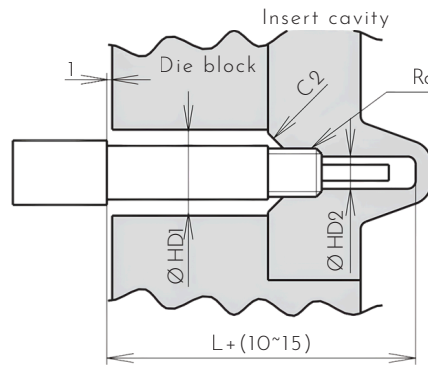
SCT-W2



SCT-W1



Installation dimensions



Available sizes in mm

Outer Pipe			Inner Pipe		Head Size	Die Block Hole	Insert Hole
OD	ID	TH	OD	ID	F	HD1	HD2
10.5	5.7	Rc1/8	4	2	24	15	6
13.8	7.8	Rc1/4	6	4	24	17	8
17.3	10.9	Rc3/8	8	6	29	22	12
21.7	16.1	Rc1/2	10	8	29	26	16

Optional

Description	Image	Details (For Rc 1/4" head connection)	Ordering Code
One touch connector		For 6mm tube	CP06014
		For 8mm tube	CP08014
Hose nipple connector		For 8mm tube	HN08014
Marking		Maximum 6 english letters and numbers font size 3mm	M. XXXXXX M. MC23

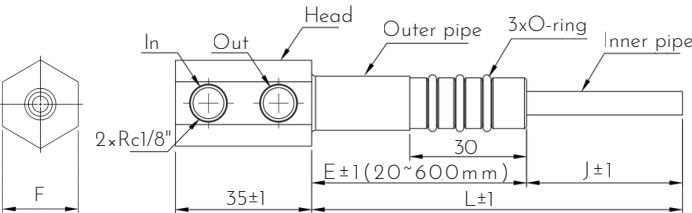
Ordering code example

Part Type	Rc	Outer Pipe OD/ID	Inner Pipe OD/ID	Head Size	E	J	Connector	Marking	Final Code
SCT-W2	Rc1/4	10.5/5.7	4/2	F24	E176	J135	CP06014	M. 09	SCT-W2-Rc1/4-10.5/5.7-4/2-F24-E176-J135-CP06014-M. 09
SCT-W1	Rc1/4	21.7/16.1	-	F29	E95	-	CP06014	M. MC23	SCT-W1-Rc1/4-21.7/16.1-F29-E95-CP06014-M. MC23

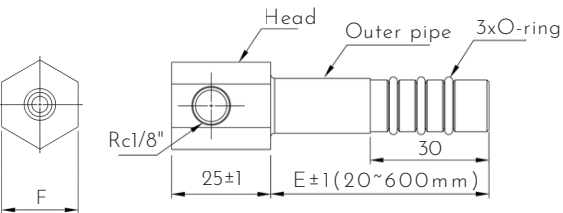
RAGA SPOT COOLER

O-ring type Rc 1/8" head connection

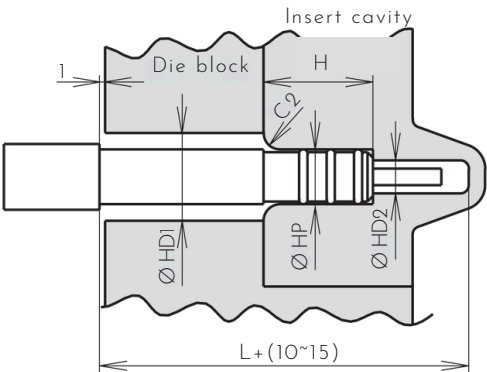
SCO-W2



SCO-W1



Installation dimensions



Available sizes in mm

Outer Pipe			Inner Pipe		Head Size	Die Block Hole	O-Ring Fit Hole	Insert Hole
OD	ID	Size	OD	ID	F	HD1	HP	HD2
10.5	5.7	1/8	4	2	17	15	11	6
13.8	7.8	1/4	6	4	19	17	13	8
17.3	10.9	3/8	8	6	21	22	18	12
21.7	16.1	1/2	10	8	24	26	22	16

Optional

Description	Image	Details (For Rc 1/8" head connection)	Ordering Code
One touch connector		For 6mm tube	CP06018
		For 8mm tube	CP08018
Hose nipple connector		For 8mm tube	HN08018
Marking		Maximum 6 english letters and numbers font size 3mm	M. XXXXXX M. MC23

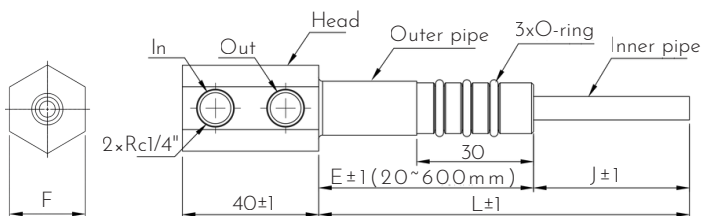
Ordering code example

Part Type	Rc	Outer Pipe OD/ID	Inner Pipe OD/ID	Head Size	E	J	Connector	Marking	Final Code
SCO-W2	Rc1/8	10.5/5.7	4/2	F17	E176	J135	CP06018	M. 09	SCO-W2-Rc1/8-10.5/5.7-4/2-F17-E176-J135-CP06018-M.09
SCO-W1	Rc1/8	21.7/16.1	-	F24	E95	-	CP06018	M. MC23	SCO-W1-Rc1/8-21.7/16.1-F24-E95-CP06018-M. MC23

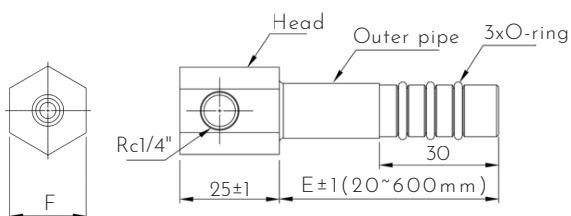
RAGA SPOT COOLER

O-ring type Rc 1/4" head connection

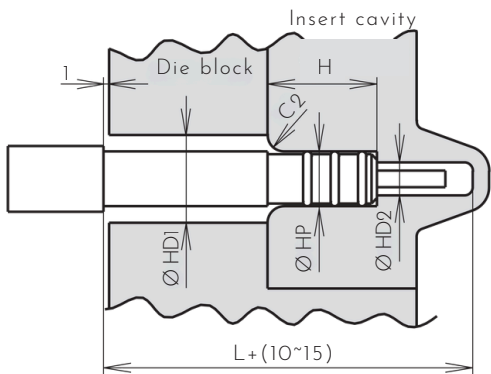
SCO-W2



SCO-W1



Installation dimensions



Available sizes in mm

Outer Pipe			Inner Pipe		Head Size	Die Block Hole	O-Ring Fit Hole	Insert Hole
OD	ID	Size	OD	ID	F	HD1	HP	HD2
10.5	5.7	1/8	4	2	24	15	11	6
13.8	7.8	1/4	6	4	24	17	13	8
17.3	10.9	3/8	8	6	29	22	18	12
21.7	16.1	1/2	10	8	29	26	22	16

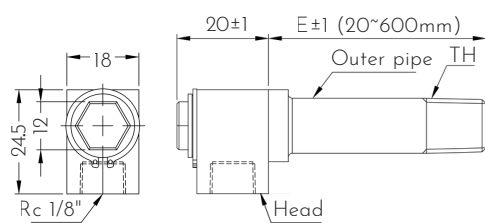
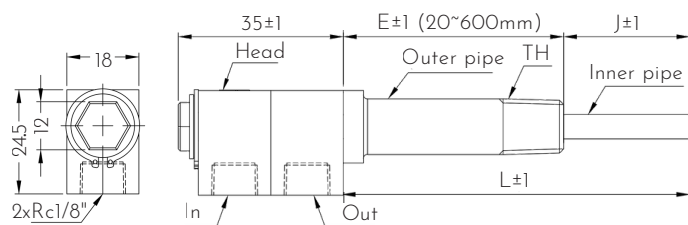
Optional

Description	Image	Details (For Rc 1/4" head connection)	Ordering Code
One touch connector		For 6mm tube	CP06014
		For 8mm tube	CP08014
Hose nipple connector		For 8mm tube	HN08014
Marking		Maximum 6 english letters and numbers font size 3mm	M. XXXXXX M. MC23

Ordering code example

Part Type	Rc	Outer Pipe OD/ID	Inner Pipe OD/ID	Head Size	E	J	Connector	Marking	Final Code
SCO-W2	Rc1/4	10.5/5.7	4/2	F24	E176	J67	CP06014	M. 09	SCO-W2-Rc1/4-10.5/5.7-4/2-F24-E176-J67-CP06014-M. 09
SCO-W1	Rc1/4	21.7/16.1	-	F29	E245	-	CP06014	M. MC23	SCO-W1-Rc1/4-21.7/16.1-F29-E245-CP06014-M. MC23

Isolated type Rc 1/8" head connection



Technical drawing of a die casting mold assembly. The diagram shows a cross-section of a die block with an insert cavity. A cylindrical insert is shown with dimensions: length l , diameter $\varnothing HD1$, and a chamfer $C2$. The total length of the assembly is $L + (10 \sim 15)$. The insert has a diameter $\varnothing HD2$ at its end.

Outer Pipe			Inner Pipe		Die Block Hole	Insert Hole
OD	ID	TH	OD	ID	HD1	HD2
10.5	5.7	Rc1/8	4	2	15	6
13.8	7.8	Rc1/4	6	4	17	8
17.3	10.9	Rc3/8	8	6	22	12

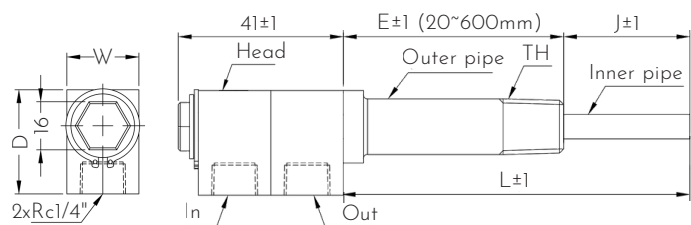
Description	Image	Details (For Rc 1/8" head connection)	Ordering Code
One touch connector		For 6mm tube	CP06018
		For 8mm tube	CP08018
Hose nipple connector		For 8mm tube	HN08018
Marking		Maximum 6 english letters and numbers font size 3mm	M. XXXXXXX M. MC23

Part Type	Rc	Outer Pipe OD/ID	Inner Pipe OD/ID	E	J	Connector	Marking	Final Code
SCI-W2	Rc1/8	10.5/5.7	4/2	E176	J143	CP06018	M. 09	SCI-W2-Rc1/8-10.5/5.7-4/2-E176-J143-CP06018-M. 09
SCI-W1	Rc1/8	17.3/10.9	–	E245	–	CP06018	M. MC23	SCI-W1-Rc1/8-17.3/10.9-E245-CP06018-M. MC23

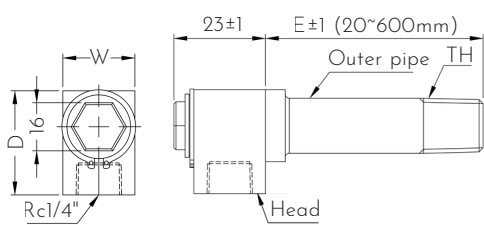
RAGA SPOT COOLER

Isolated type Rc 1/4" head connection

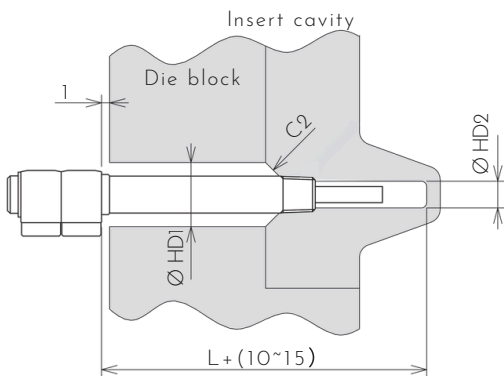
SCI-W2



SCI-W1



Installation dimensions



Available sizes in mm

Outer Pipe			Inner Pipe		Head		Die Block Hole	Insert Hole
OD	ID	TH	OD	ID	W	D	HD1	HD2
10.5	5.7	Rc1/8	4	2	18	26	15	6
13.8	7.8	Rc1/4	6	4			17	8
17.3	10.9	Rc3/8	8	6			22	12
21.7	16.1	Rc1/2	10	8	22	30	26	16

Optional

Description	Image	Details (For Rc 1/4" head connection)	Ordering Code
One touch connector		For 6mm tube	CP06014
		For 8mm tube	CP08014
Hose nipple connector		For 8mm tube	HN08014
Marking		Maximum 6 english letters and numbers font size 3mm	M. XXXXXX M. MC23

Ordering code example

Part Type	Rc	Outer Pipe OD/ID	Inner Pipe OD/ID	E	J	Connector	Marking	Final Code
SCI-W2	Rc1/4	10.5/5.7	4/2	E176	J67	CP06014	M. 09	SCI-W2-Rc1/4-10.5/5.7-4/2-E176-J67-CP06014-M. 09
SCI-W1	Rc1/4	17.3/10.9	--	E245	--	CP06014	M. MC23	SCI-W1-Rc1/4-17.3/10.9-E245-CP06014-M. MC23

Separately Available

Jet Cooler

Description	Image	Details	Ordering Code	MOQ
Fluoropolymer Tube		Outer Ø4mm, inner Ø2.5mm, Blue	FPT-04-2.5-BL	20 m
		Outer Ø4mm, inner Ø2.5mm, Red	FPT-04-2.5-RE	
		Outer Ø4mm, inner Ø2.5mm, White	FPT-04-2.5-N	
		Outer Ø6mm, inner Ø4mm, Blue	FPT-06-04-BL	
		Outer Ø6mm, inner Ø4mm, Red	FPT-06-04-RE	
		Outer Ø6mm, inner Ø4mm, White	FPT-06-04-N	

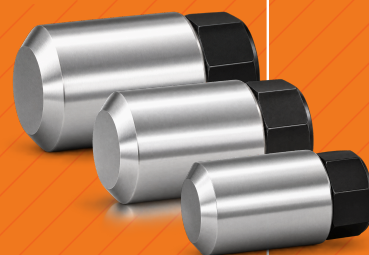
Spot Cooler

Description	Image	Details	Ordering Code	MOQ
Rubber Hose		Outer Ø12mm Inner Ø6.3mm-Blue	RH08-BL	20m
		Outer Ø16mm Inner Ø9.5mm-Blue	RH10-BL	
		Outer Ø12mm Inner Ø6.3mm-Red	RH08-RE	
		Outer Ø16mm Inner Ø9.5mm-Red	RH10-RE	
Steel Braided Hoses		G1/4"; 1m; Black coupler	SH14-1-BK	1 Pc
		G1/4"; 2m; Black coupler	SH14-2-BK	
		G1/4"; 5m; Black coupler	SH14-5-BK	
		G1/4"; 1m; Red coupler	SH14-1-RE	
		G1/4"; 2m; Red coupler	SH14-2-RE	
		G1/4"; 5m; Red coupler	SH14-5-RE	

INJECTION PARTS



Shot sleeve



Plunger tip



Sprue bush & Diffuser



RAGA Vacuum Shot Sleeve

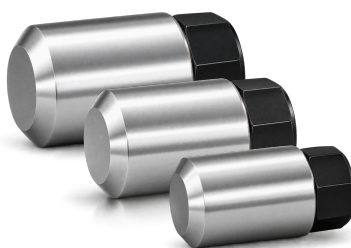
RAGA SHOT SLEEVE

Long life RAGA SHOT SLEEVES come in fully or partially cooled with one or two part options

High quality AISI H-13 / DIN 1.2344 is precisely machined, ground, hardened and nitrided

Casters use the RAGA Vacuum Shot Sleeve to significantly reduce gate-area porosity

RAGA's twin-stage vacuum system connects to the sleeve and the mold, extracting air through wide cross-section channels during the first injection phase



RAGA PLUNGER TIP

RAGA PLUNGER TIP reduces breakdown time due to plunger tip change

Made with high quality AISI H-13 / DIN 1.2344, it gives multiple times more life than cast iron

Precisely machined & grounded

Results in higher sleeve life



RAGA SPRUE BUSH & DIFFUSER

Refined material structure and heat treatment makes SPRUE
BUSH & DIFFUSER more durable

High quality AISI H-13/DIN 1.2344 is precisely machined,
ground, hardened & nitrided

Options of integral/jacket/conformal cooling are available
which make the part thermally balanced

CLIENTELE



Consumables

Connect with our team for a free demo or sample batch of consumables.
Discover how Raga solutions can help resolve your challenges

Technologies

Share your casting challenges with our team for a free assessment
of how you can reduce defects in your castings

India

+91-9582254290
sales@ragagroup.com

Rest of the world

+91-9582254297
salesint@ragagroup.com

30/2 Wearwell Complex, Industrial Area
N.I.T., Faridabad 121001, India

 www.ragagroup.com