# COOLERS

RAAL®
complete cooling solutions

## GR S/D SERIES



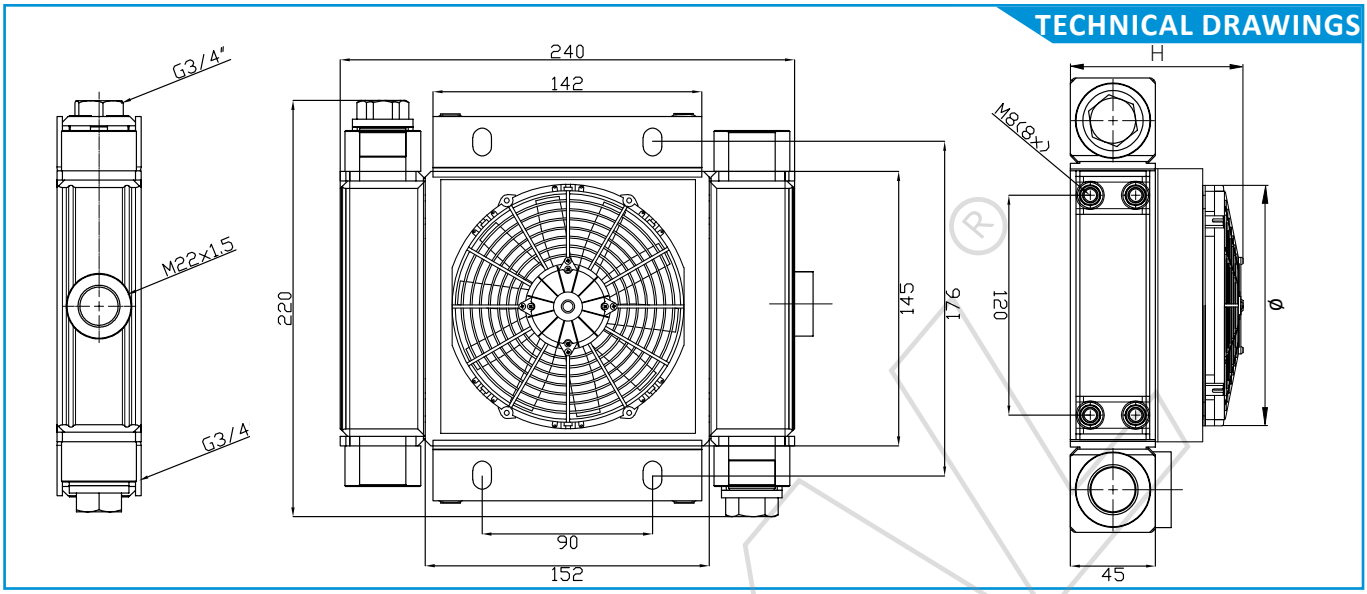

MIRROR LINE

# MOD. GRS 25

## GR S/D SERIES



### TECHNICAL DRAWINGS

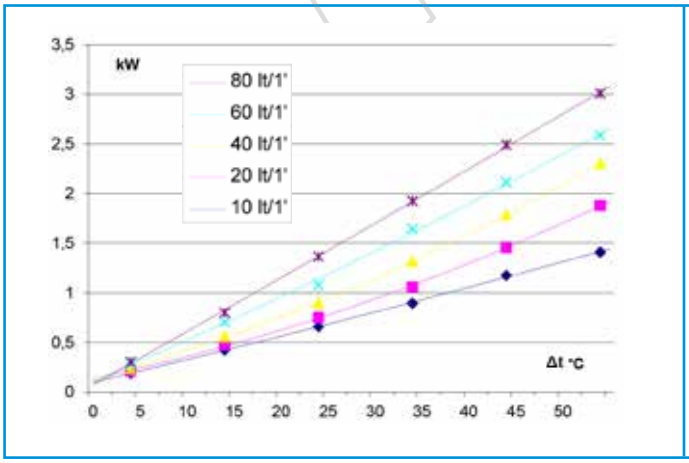


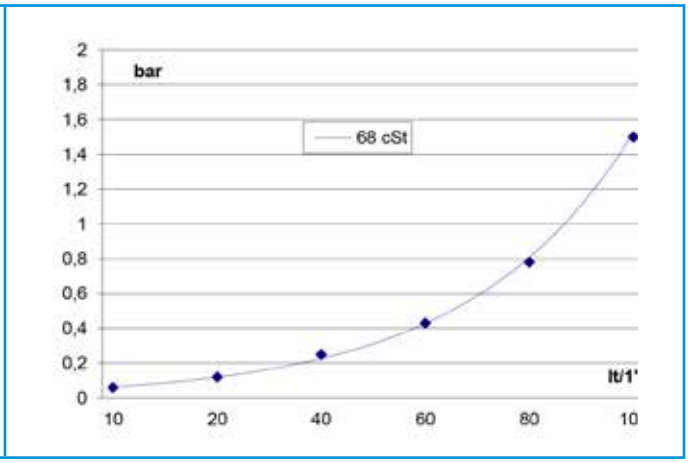

### COOLERS RANGE

| Product Code | Type of Setting | Overall H | Fan ø | Fan Power m³/h | M.R. dm³ | Power Consumpt. |
|---|---|---|---|---|---|---|
| RU0189380000 | UNCOVERED | 45 | - | - | 0,99 | - |
| RU0189380011 | 12V Suct. | 160 | 167 | 395 | 0,99 | 6,0 A |
| RU0189380012 | 12V Blow. | 160 | 167 | 408 | 0,99 | 6,1 A |
| RU0189380021 | 24V Suct. | 160 | 167 | 295 | 0,99 | 2,6 A |
| RU0189380022 | 24V Blow. | 160 | 167 | 423 | 0,99 | 3,3 A |
| RU0189380031 | 230V-50/60Hz Suct. | 155 | 170 | 565 | 0,99 | 0,23 A |
| RU0189380032 | 230V-50/60Hz Blow. | 155 | 170 | 565 | 0,99 | 0,23A |
| RU0189380041 | 230/400V-50/60Hz 3FN Suct. | 155 | 170 | 535 | 0,99 | 0,9 A |
| RU0189380042 | 230/400V-50/60Hz 3FN Blow. | 155 | 170 | 535 | 0,99 | 0,9 A |
| RU0189380051 | Pred. Hydraulic. Suct. | 165 | 170 | 880 | 0,99 | 0,6 kW |
| RU0189380052 | Pred. Hydraulic. Blow. | 165 | 170 | 880 | 0,99 | 0,6 kW |

### TECH. SPEC.

| | |
|---|---|
| *Minimum Range* | Kw 1,4:10 lt |
| *Maximum Range* | Kw 3:80 lt |



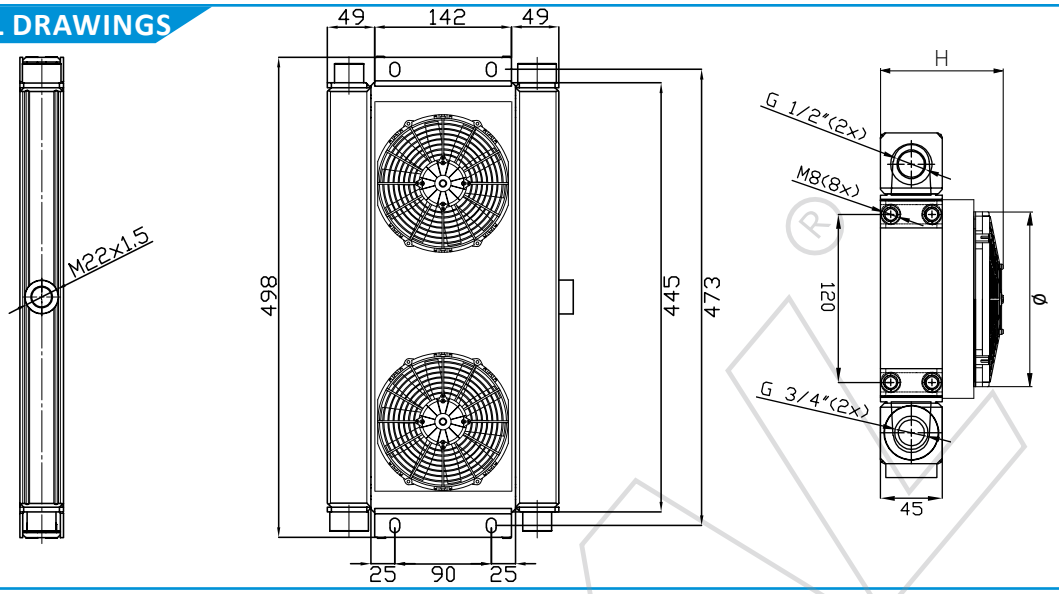



# GR S/D SERIES

## MOD. GRS 100L



### TECHNICAL DRAWINGS

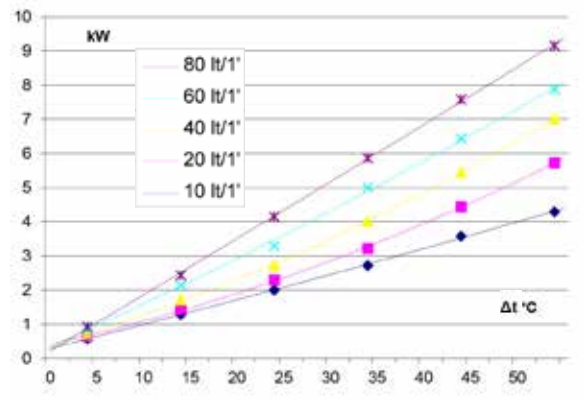


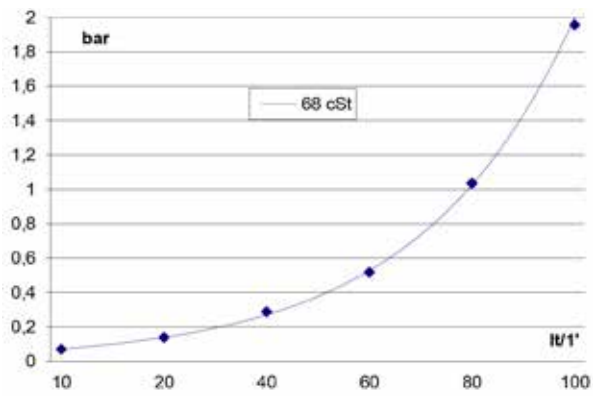

### COOLERS RANGE

| Product Code | Type of Setting | Overall H | Fan ø | Fan Power m³/h | M.R. dm³ | Power Consumpt. |
|---|---|---|---|---|---|---|
| RU0189430000 | UNCOVERED | 45 | - | - | 3,04 | - |
| RU0189430011 | 12V Suct. | 160 | 2 x 225 | 1378 | 3,04 | 14,4 A |
| RU0189430012 | 12V Blow. | 160 | 2 x 225 | 1406 | 3,04 | 14,8 A |
| RU0189430021 | 24V Suct. | 160 | 2 x 225 | 1366 | 3,04 | 7,2 A |
| RU0189430022 | 24V Blow. | 160 | 2 x 225 | 1472 | 3,04 | 7,4 A |
| RU0189430031 | 230V-50/60Hz Suct. | 155 | 2 x 200 | 2050 | 3,04 | 0,68 A |
| RU0189430032 | 230V-50/60Hz Blow. | 155 | 2 x 200 | 2050 | 3,04 | 0,68 A |
| RU0189430041 | 230/400V-50/60Hz 3FN Suct. | 155 | 2 x 200 | 2040 | 3,04 | 0,26 A |
| RU0189430042 | 230/400V-50/60Hz 3FN Blow. | 155 | 2 x 200 | 2040 | 3,04 | 0,26 A |
| RU0189430051 | Pred. Hydraulic. Suct. | 165 | 2 x 200 | 1916 | 3,04 | 0,14 kW |
| RU0189430052 | Pred. Hydraulic. Blow. | 165 | 2 x 200 | 1916 | 3,04 | 0,14 kW |

### TECH. SPEC.

| | |
|---|---|
| *Minimum Range* | Kw 4,1:10 lt |
| *Maximum Range* | Kw 9,2: 80 lt |



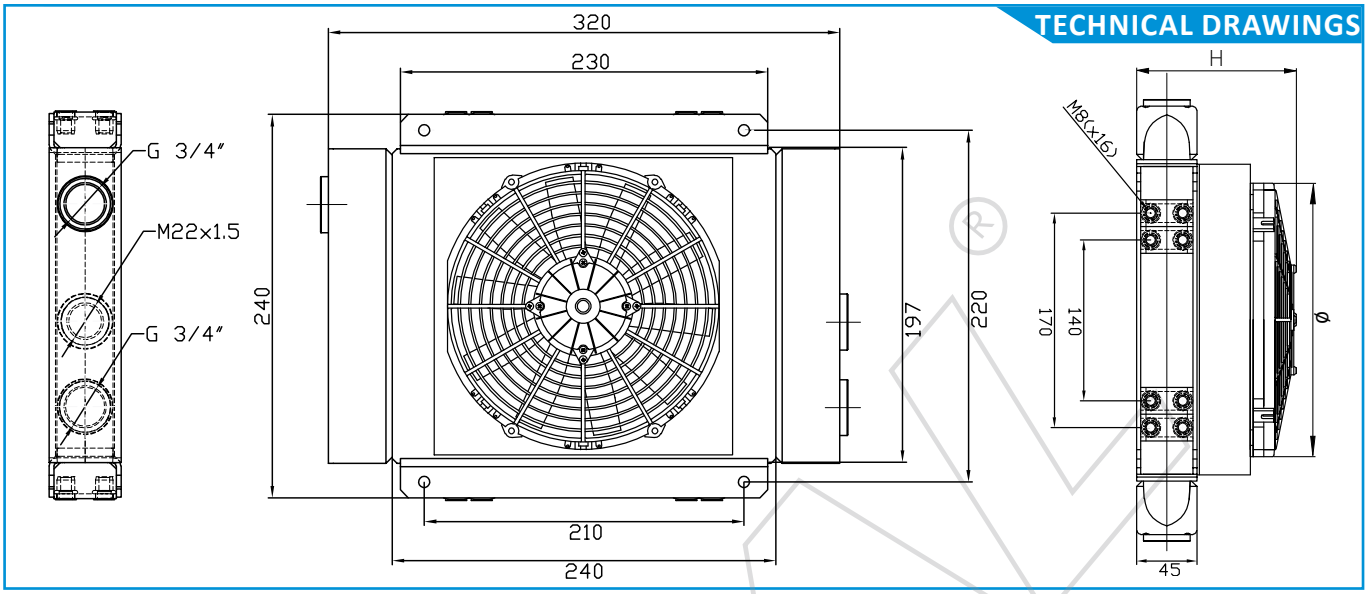
# COOLERS

## MOD. GRS 50

## GR S/D SERIES



### TECHNICAL DRAWINGS



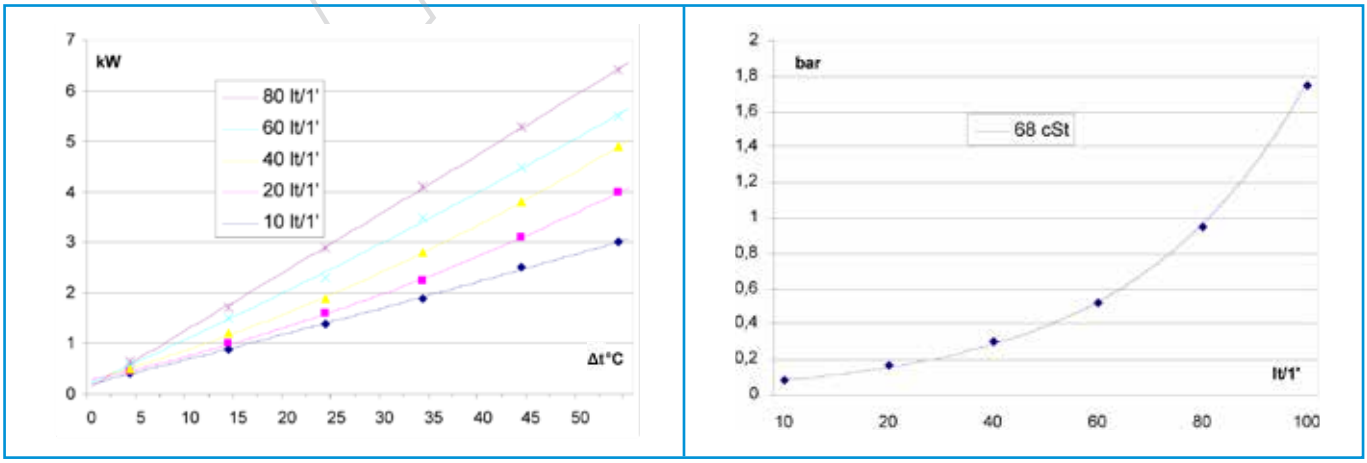

### COOLERS RANGE

| Product Code | Type of Setting | Overall H | Fan ø | Fan Power m³/h | M.R. dm³ | Power Consumpt. |
|---|---|---|---|---|---|---|
| RU0100610000 | UNCOVERED | 45 | - | - | 2,13 | - |
| RU0100610011 | 12V Suct. | 140 | 190 | 446 | 2,13 | 6,4 A |
| RU0100610012 | 12V Blow. | 140 | 190 | 497 | 2,13 | 6,4 A |
| RU0100610021 | 24V Suct. | 140 | 190 | 419 | 2,13 | 2,8 A |
| RU0100610022 | 24V Blow. | 140 | 190 | 505 | 2,13 | 3,3 A |
| RU0100610031 * | 230V-50/60Hz Suct. | 135 | 200 | 1025 | 2,13 | 0,34 A |
| RU0100610032 * | 230V-50/60Hz Blow. | 135 | 200 | 1025 | 2,13 | 0,34 A |
| RU0100610041 | 230/400V-50/60Hz 3FN Suct. | 135 | 200 | 1020 | 2,13 | 0,13 A |
| RU0100610042 | 230/400V-50/60Hz 3FN Blow. | 135 | 200 | 1020 | 2,13 | 0,13 A |
| RU0100610051 | Pred. Hydraulic. Suct. | 145 | 195 | 958 | 2,13 | 0,7 kW |
| RU0100610052 | Pred. Hydraulic. Blow. | 145 | 195 | 958 | 2,13 | 0,7 kW |

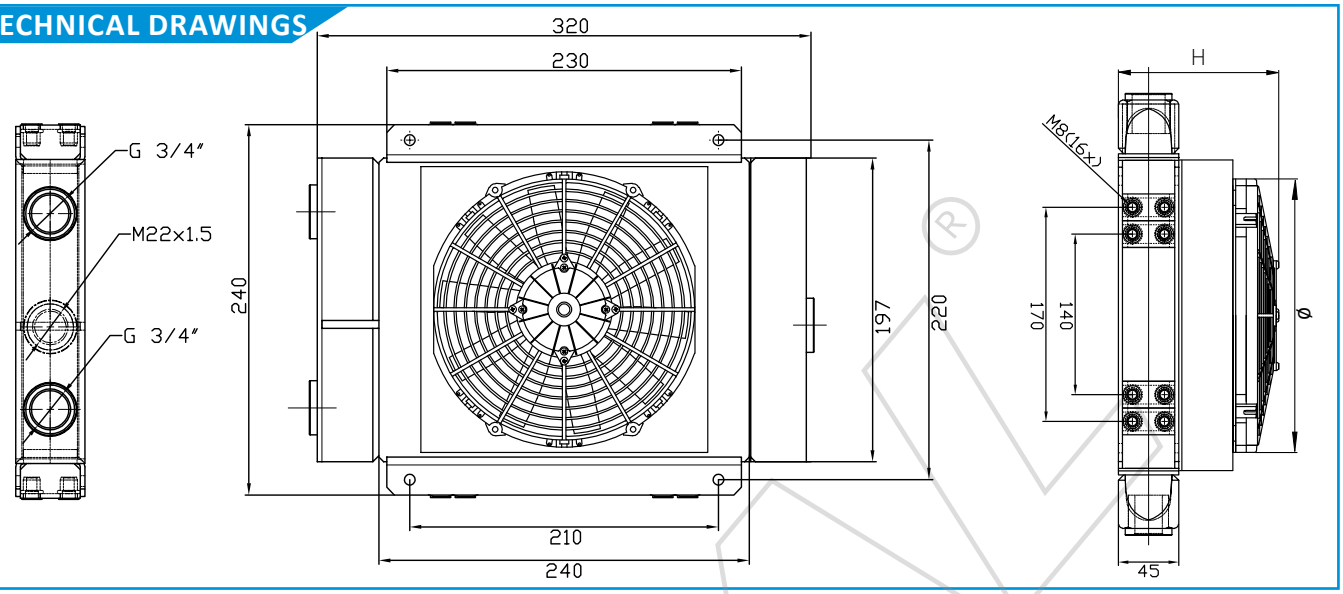
* In **SINGLE PHASE** models (*31/*32), **ADJUSTABLE THERMOSTAT** 0-90° on request

### TECH. SPEC.

| | |
|---|---|
| *Minimum Range* | Kw 3:10 lt |
| *Maximum Range* | Kw 6,3:80 lt |



## TECHNICAL DRAWINGS



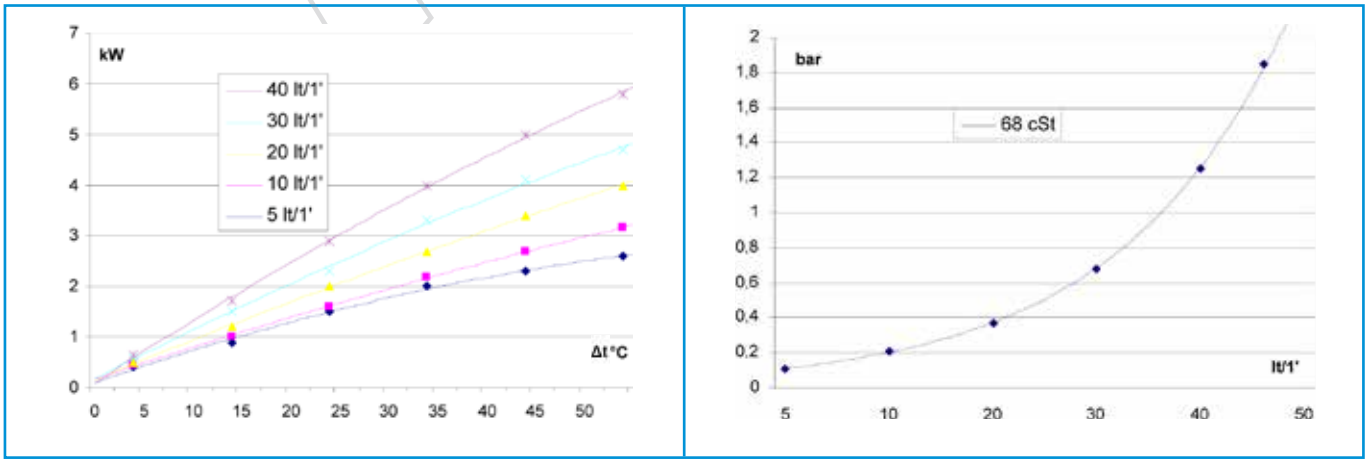

## COOLERS RANGE

| Product Code | Type of Setting | Overall H | Fan ø | Fan Power m³/h | M.R. dm³ | Power Consumpt. |
|---|---|---|---|---|---|---|
| RU0100620000 | UNCOVERED | 45 | - | - | 2,13 | - |
| RU0100620011 | 12V Suct. | 140 | 190 | 446 | 2,13 | 6,4 A |
| RU0100620012 | 12V Blow. | 140 | 190 | 497 | 2,13 | 6,4 A |
| RU0100620021 | 24V Suct. | 140 | 190 | 419 | 2,13 | 2,8 A |
| RU0100620022 | 24V Blow. | 140 | 190 | 505 | 2,13 | 3,3 A |
| RU0100620031 * | 230V-50/60Hz Suct. | 135 | 200 | 1025 | 2,13 | 0,34 A |
| RU0100620032 * | 230V-50/60Hz Blow. | 135 | 200 | 1025 | 2,13 | 0,34 A |
| RU0100620041 | 230/400V-50/60Hz 3FN Suct. | 135 | 200 | 1020 | 2,13 | 0,13 A |
| RU0100620042 | 230/400V-50/60Hz 3FN Blow. | 135 | 200 | 1020 | 2,13 | 0,13 A |
| RU0100620051 | Pred. Hydraulic. Suct. | 145 | 195 | 958 | 2,13 | 0,7 kW |
| RU0100620052 | Pred. Hydraulic. Blow. | 145 | 195 | 958 | 2,13 | 0,7 kW |

* In **SINGLE PHASE** models (*31/*32), **ADJUSTABLE THERMOSTAT** 0-90° on request

## TECH. SPEC.

| | |
|---|---|
| *Minimum Range* | Kw 2,8:5 lt |
| *Maximum Range* | Kw 5,9: 40 lt |

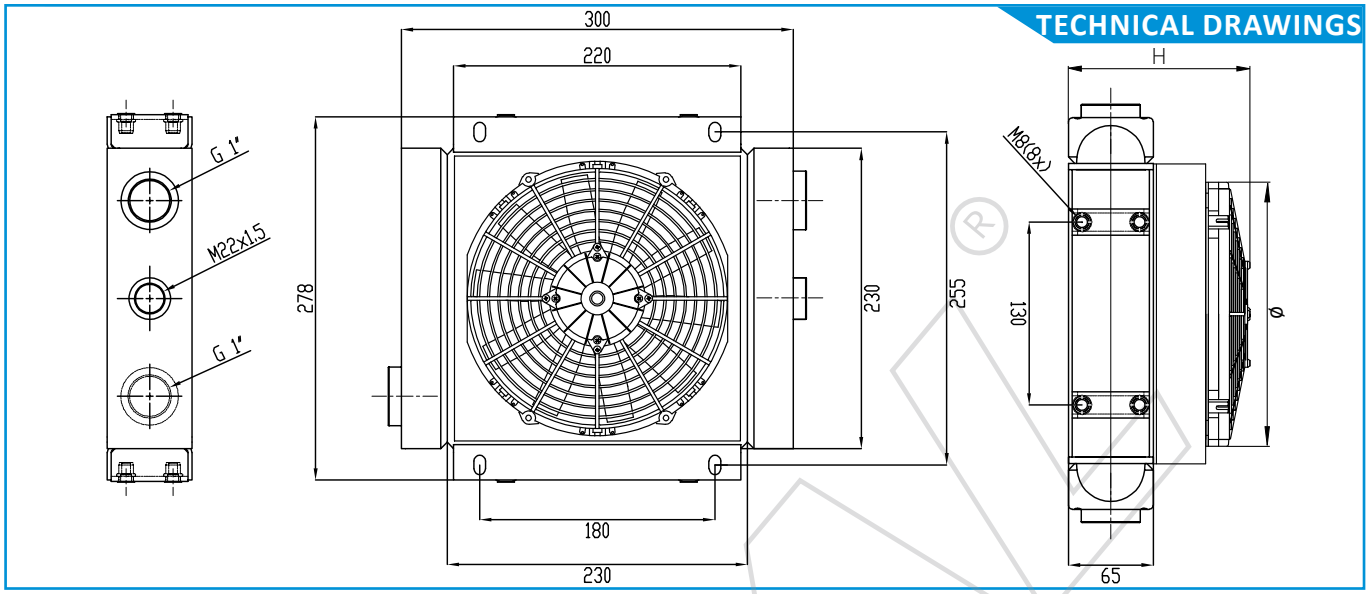


# MOD. GRS 80

## GR S/D SERIES



### TECHNICAL DRAWINGS

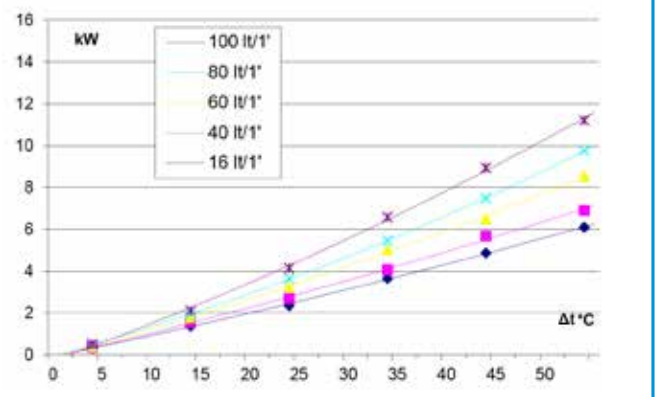


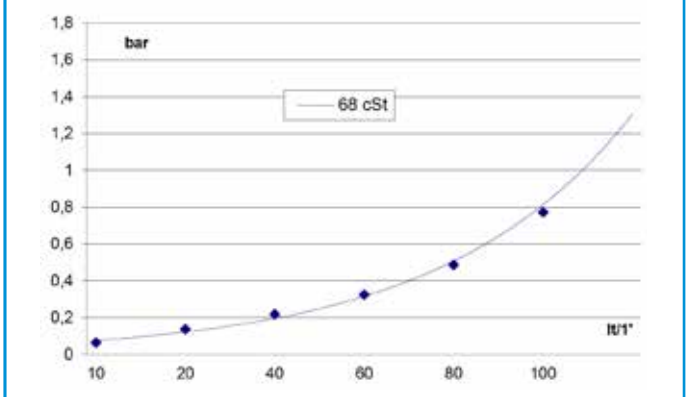

### COOLERS RANGE

| Product Code | Type of Setting | Overall H | Fan ø | Fan Power m³/h | M.R. dm³ | Power Consumpt. |
|---|---|---|---|---|---|---|
| RU0267680000 | NUDO | 65 | - | - | 3,43 | - |
| RU0267680011 | 12V Asp. | 170 | 225 | 689 | 3,43 | 7,2 A |
| RU0267680012 | 12V Soff. | 170 | 225 | 703 | 3,43 | 7,4 A |
| RU0267680021 | 24V Asp. | 170 | 225 | 683 | 3,43 | 3,6 A |
| RU0267680022 | 24V Soff. | 170 | 225 | 736 | 3,43 | 3,7 A |
| RU0267680031 | 230V-50/60Hz Asp. | 165 | 200 | 1025 | 3,43 | 0,34 A |
| RU0267680032 | 230V-50/60Hz Soff. | 165 | 200 | 1025 | 3,43 | 0,34 A |
| RU0267680041 | 230/400V-50/60Hz 3FN Asp. | 165 | 200 | 1020 | 3,43 | 0,13 A |
| RU0267680042 | 230/400V-50/60Hz 3FN Soff. | 165 | 200 | 1020 | 3,43 | 0,13 A |
| RU0267680051 | Pred. Hydraulic. Asp. | 185 | 200 | 958 | 3,43 | 0,7 kW |
| RU0267680052 | Pred. Hydraulic. Soff. | 185 | 200 | 958 | 3,43 | 0,7 kW |

### TECH. SPEC.

| | |
|---|---|
| *Minimum Range* | Kw 6:16 lt |
| *Maximum Range* | Kw 16:100 lt |



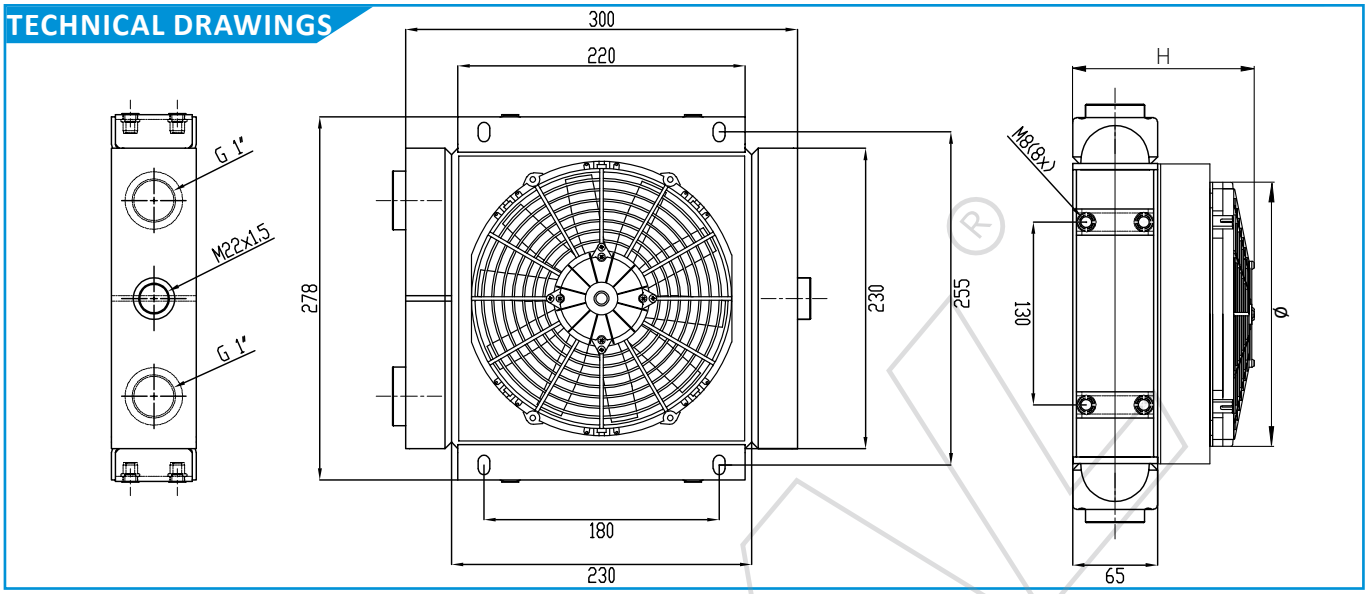



# GR S/D SERIES

## MOD. GRD 80



### TECHNICAL DRAWINGS

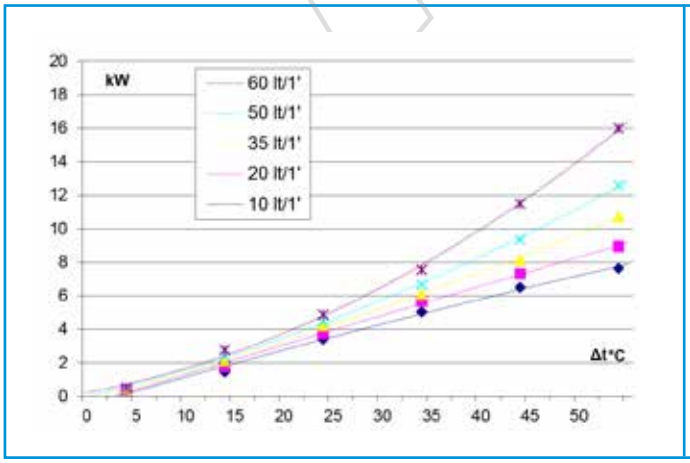


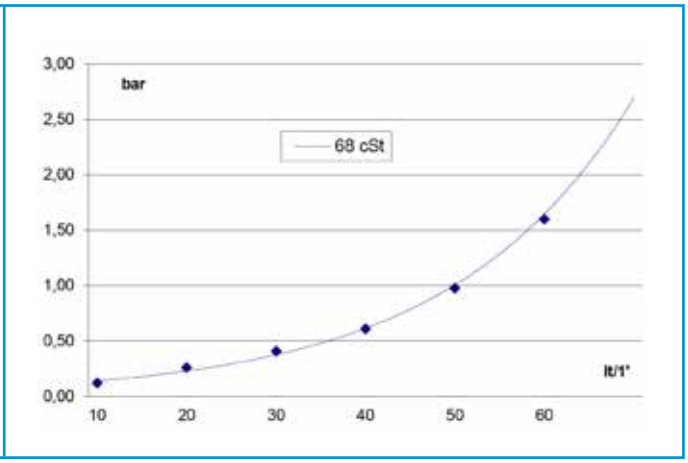

### COOLERS RANGE

| Product Code | Type of Setting | Overall H | Fan ø | Fan Power m³/h | M.R. dm³ | Power Consumpt. |
|---|---|---|---|---|---|---|
| RU0267680000 | NUDO | 65 | - | - | 3,43 | - |
| RU0267680011 | 12V Asp. | 170 | 225 | 689 | 3,43 | 7,2 A |
| RU0267680012 | 12V Soff. | 170 | 225 | 703 | 3,43 | 7,4 A |
| RU0267680021 | 24V Asp. | 170 | 225 | 683 | 3,43 | 3,6 A |
| RU0267680022 | 24V Soff. | 170 | 225 | 736 | 3,43 | 3,7 A |
| RU0267680031 | 230V-50/60Hz Asp. | 165 | 200 | 1025 | 3,43 | 0,34 A |
| RU0267680032 | 230V-50/60Hz Soff. | 165 | 200 | 1025 | 3,43 | 0,34 A |
| RU0267680041 | 230/400V-50/60Hz 3FN Asp. | 165 | 200 | 1020 | 3,43 | 0,13 A |
| RU0267680042 | 230/400V-50/60Hz 3FN Soff. | 165 | 200 | 1020 | 3,43 | 0,13 A |
| RU0267680051 | Pred. Hydraulic. Asp. | 185 | 200 | 958 | 3,43 | 0,7 kW |
| RU0267680052 | Pred. Hydraulic. Soff. | 185 | 200 | 958 | 3,43 | 0,7 kW |

### TECH. SPEC.

| | |
|---|---|
| *Minimum Range* | Kw 7,0:10 lt |
| *Maximum Range* | Kw 16: 60 lt |



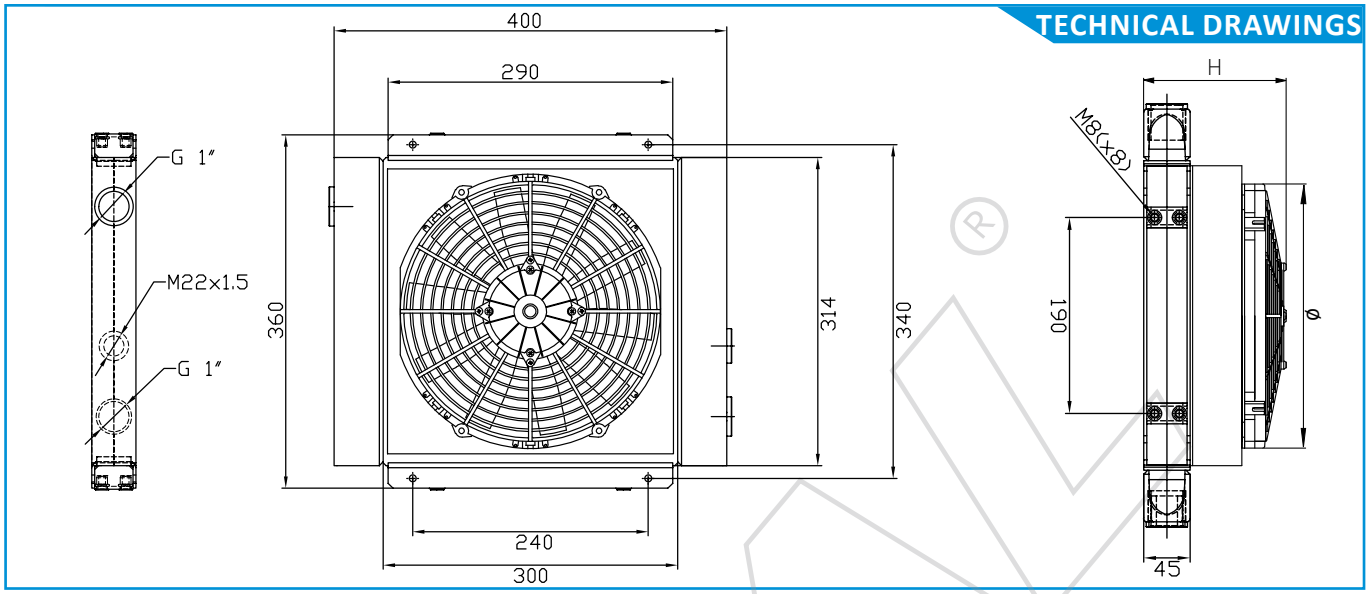
# COOLERS

## MOD. GRS 100

## GR S/D SERIES



### TECHNICAL DRAWINGS



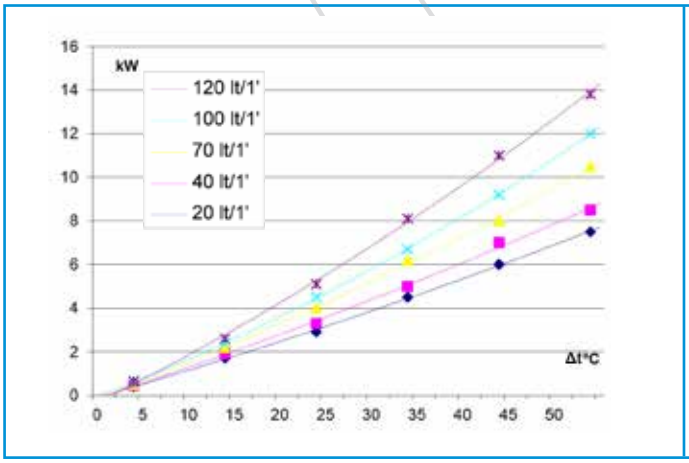

### COOLERS RANGE

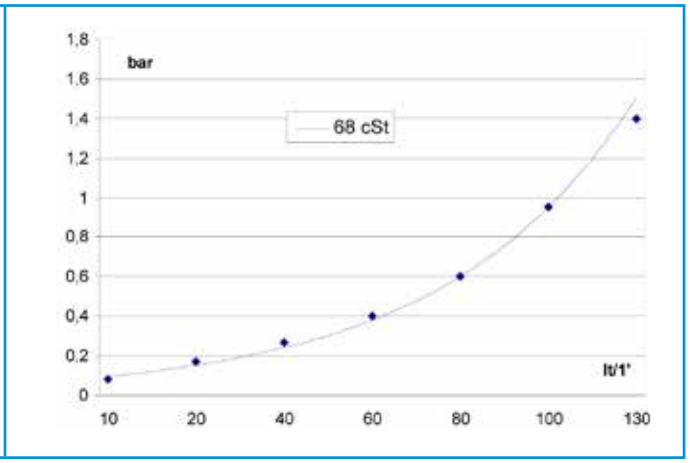
| Product Code | Type of Setting | Overall H | Fan ø | Fan Power m³/h | M.R. dm³ | Power Consumpt. |
|---|---|---|---|---|---|---|
| RU0100630000 | UNCOVERED | 45 | - | - | 4,24 | - |
| RU0100630011 | 12V Suct. | 210 | 305 | 1839 | 4,24 | 16,5 A |
| RU0100630012 | 12V Blow. | 210 | 305 | 2800 | 4,24 | 15,0 A |
| RU0100630021 | 24V Suct. | 210 | 305 | 2161 | 4,24 | 10,3 A |
| RU0100630022 | 24V Blow. | 210 | 305 | 2050 | 4,24 | 9,1 A |
| RU0100630031 * | 230V-50/60Hz Suct. | 175 | 300 | 3745 | 4,24 | 1,55 A |
| RU0100630032 * | 230V-50/60Hz Blow. | 175 | 300 | 3745 | 4,24 | 1,55 A |
| RU0100630041 | 230/400V-50/60Hz 3FN Suct. | 175 | 300 | 3350 | 4,24 | 0,48 A* |
| RU0100630042 | 230/400V-50/60Hz 3FN Blow. | 175 | 300 | 3350 | 4,24 | 0,48 A* |
| RU0100630051 | Pred. Hydraulic. Suct. | 228 | 300 | 3080 | 4,24 | 0,41 kW |
| RU0100630052 | Pred. Hydraulic. Blow. | 225 | 300 | 3080 | 4,24 | 0,41 kW |

* In **SINGLE PHASE** models (*31/*32), **ADJUSTABLE THERMOSTAT** 0-90° on request

### TECH. SPEC.

| | |
|---|---|
| *Minimum Range* | Kw 7:20 lt |
| *Maximum Range* | Kw 13:120 lt |



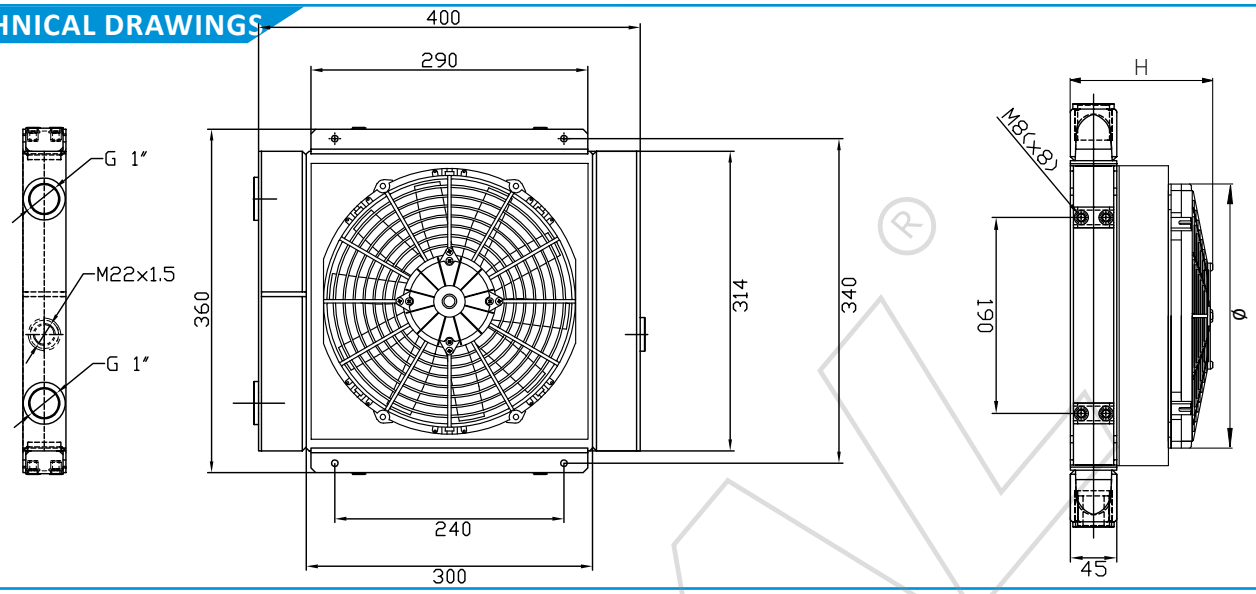



# GR S/D SERIES

## MOD. GRD 100



### TECHNICAL DRAWINGS



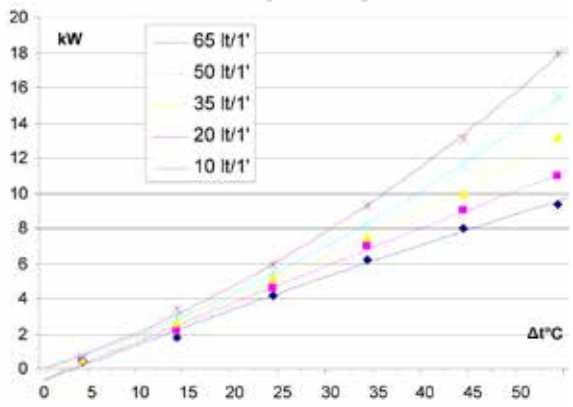

### COOLERS RANGE

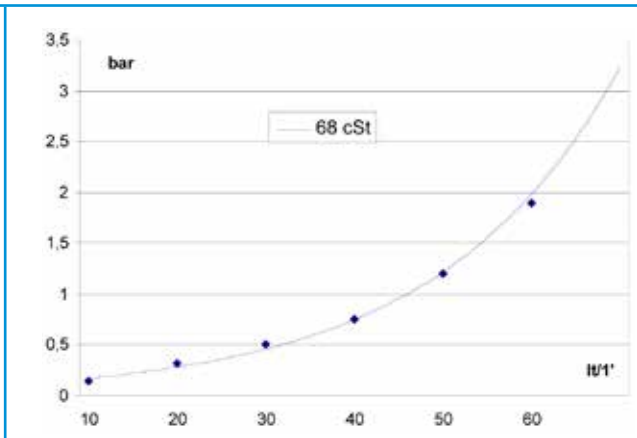
| Product Code | Type of Setting | Overall H | Fan ø | Fan Power m³/h | M.R. dm³ | Power Consumpt. |
|---|---|---|---|---|---|---|
| RU0100640000 | UNCOVERED | 45 | - | - | 4,24 | - |
| RU0100640011 | 12V Suct. | 210 | 305 | 1839 | 4,24 | 16,5 A |
| RU0100640012 | 12V Blow. | 210 | 305 | 2800 | 4,24 | 15,0 A |
| RU0100640021 | 24V Suct. | 210 | 305 | 2161 | 4,24 | 10,3 A |
| RU0100640022 | 24V Blow. | 210 | 305 | 2050 | 4,24 | 9,1 A |
| RU0100640031 * | 230V-50/60Hz Suct. | 175 | 300 | 3745 | 4,24 | 1,55 A |
| RU0100640032 * | 230V-50/60Hz Blow. | 175 | 300 | 3745 | 4,24 | 1,55 A |
| RU0100640041 | 230/400V-50/60Hz 3FN Suct. | 175 | 300 | 3350 | 4,24 | 0,48 A* |
| RU0100640042 | 230/400V-50/60Hz 3FN Blow. | 175 | 300 | 3350 | 4,24 | 0,48 A* |
| RU0100640051 | Pred. Hydraulic. Suct. | 228 | 300 | 3080 | 4,24 | 0,41 kW |
| RU0100640052 | Pred. Hydraulic. Blow. | 225 | 300 | 3080 | 4,24 | 0,41 kW |

* In **SINGLE PHASE** models (*31/*32), **ADJUSTABLE THERMOSTAT** 0-90° on request

### TECH. SPEC.

| | |
|---|---|
| *Minimum Range* | Kw 9:10 lt |
| *Maximum Range* | Kw 18:65 lt |



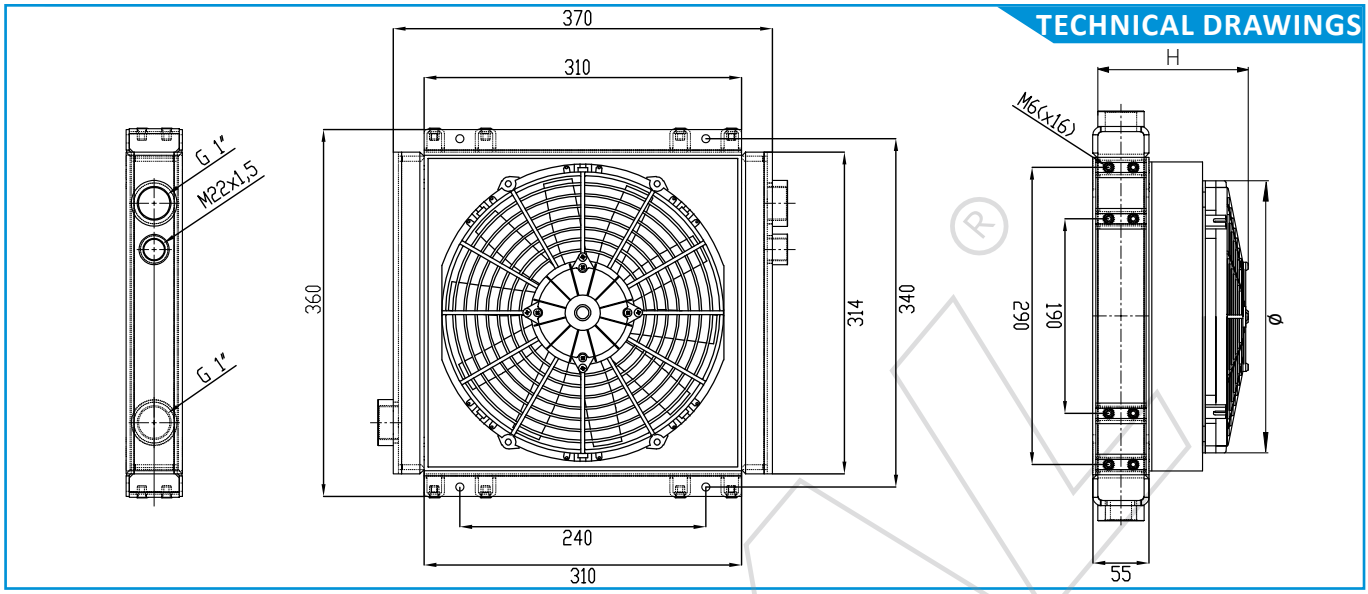



# MOD. GRS 120

## GR S/D SERIES



### TECHNICAL DRAWINGS

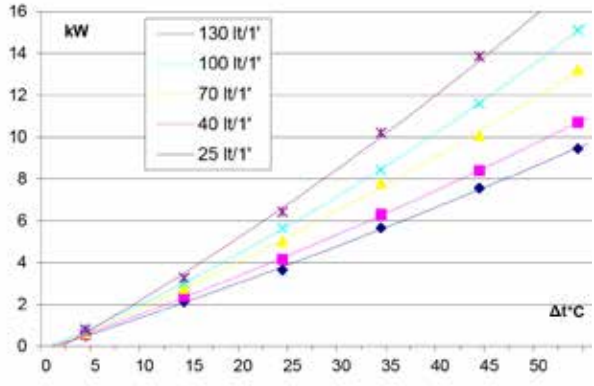


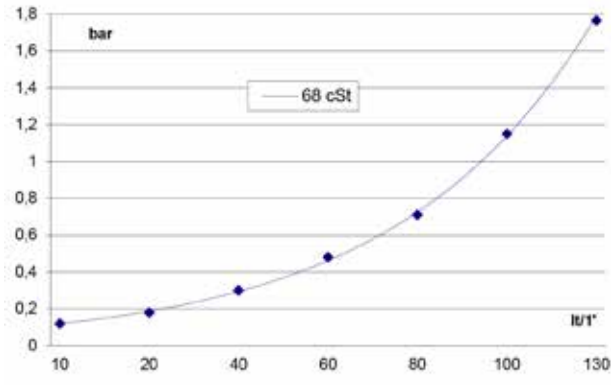

### COOLERS RANGE

| Product Code | Type of Setting | Overall H | Fan ø | Fan Power m³/h | M.R. dm³ | Power Consumpt. |
|---|---|---|---|---|---|---|
| RU0146180000 | NUDO | 55 | - | - | 5,35 | - |
| RU0146180011 | 12V Asp. | 220 | 305 | 1839 | 5,35 | 16,5 A |
| RU0146180012 | 12V Soff. | 220 | 305 | 2800 | 5,35 | 15,0 A |
| RU0146180021 | 24V Asp. | 220 | 305 | 2161 | 5,35 | 10,3 A |
| RU0146180022 | 24V Soff. | 220 | 305 | 2050 | 5,35 | 9,1 A |
| RU0146180031 | 230V-50/60Hz Asp. | 185 | 300 | 3745 | 5,35 | 1,55 A |
| RU0146180032 | 230V-50/60Hz Soff. | 185 | 300 | 3745 | 5,35 | 1,55 A |
| RU0146180041 | 230/400V-50/60Hz 3FN Asp. | 185 | 300 | 3350 | 5,35 | 0,48 A |
| RU0146180042 | 230/400V-50/60Hz 3FN Soff. | 185 | 300 | 3350 | 5,35 | 0,48 A |
| RU0146180051 | Pred. Hydraulic. Asp. | 238 | 300 | 3080 | 5,35 | 0,41 kW |
| RU0146180052 | Pred. Hydraulic. Soff. | 238 | 300 | 3080 | 5,35 | 0,41 kW |

### TECH. SPEC.

| | |
|---|---|
| *Minimum Range* | Kw 9:25 lt |
| *Maximum Range* | Kw 16:130 lt |



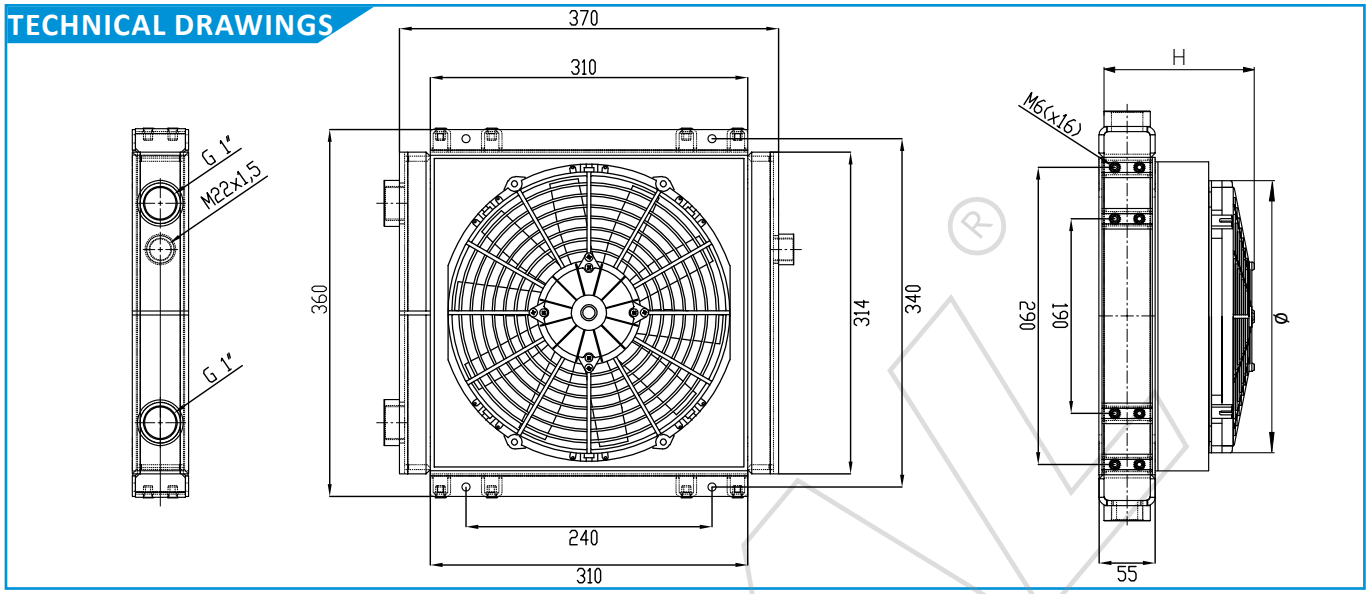



# GR S/D SERIES

## MOD. GRD 120



### TECHNICAL DRAWINGS

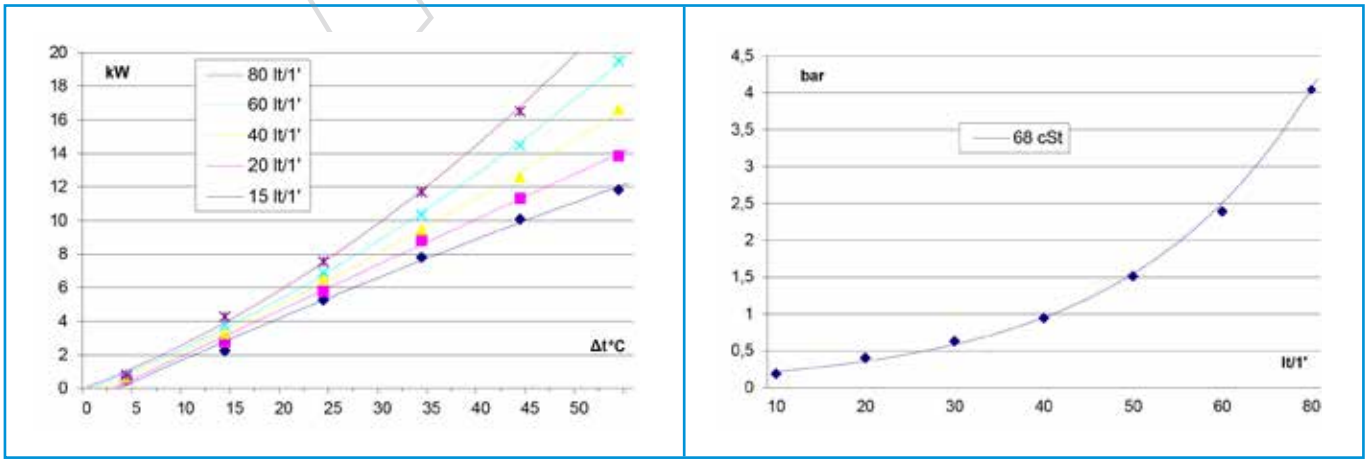



### COOLERS RANGE

| Product Code | Type of Setting | Overall H | Fan ø | Fan Power m³/h | M.R. dm³ | Power Consumpt. |
|---|---|---|---|---|---|---|
| RU0146180000 | NUDO | 55 | - | - | 5,35 | - |
| RU0146180011 | 12V Asp. | 220 | 305 | 1839 | 5,35 | 16,5 A |
| RU0146180012 | 12V Soff. | 220 | 305 | 2800 | 5,35 | 15,0 A |
| RU0146180021 | 24V Asp. | 220 | 305 | 2161 | 5,35 | 10,3 A |
| RU0146180022 | 24V Soff. | 220 | 305 | 2050 | 5,35 | 9,1 A |
| RU0146180031 | 230V-50/60Hz Asp. | 185 | 300 | 3745 | 5,35 | 1,55 A |
| RU0146180032 | 230V-50/60Hz Soff. | 185 | 300 | 3745 | 5,35 | 1,55 A |
| RU0146180041 | 230/400V-50/60Hz 3FN Asp. | 185 | 300 | 3350 | 5,35 | 0,48 A |
| RU0146180042 | 230/400V-50/60Hz 3FN Soff. | 185 | 300 | 3350 | 5,35 | 0,48 A |
| RU0146180051 | Pred. Hydraulic. Asp. | 238 | 300 | 3080 | 5,35 | 0,41 kW |
| RU0146180052 | Pred. Hydraulic. Soff. | 238 | 300 | 3080 | 5,35 | 0,41 kW |

### TECH. SPEC.

| | |
|---|---|
| *Minimum Range* | Kw 10:15 lt |
| *Maximum Range* | Kw 20: 80 lt |



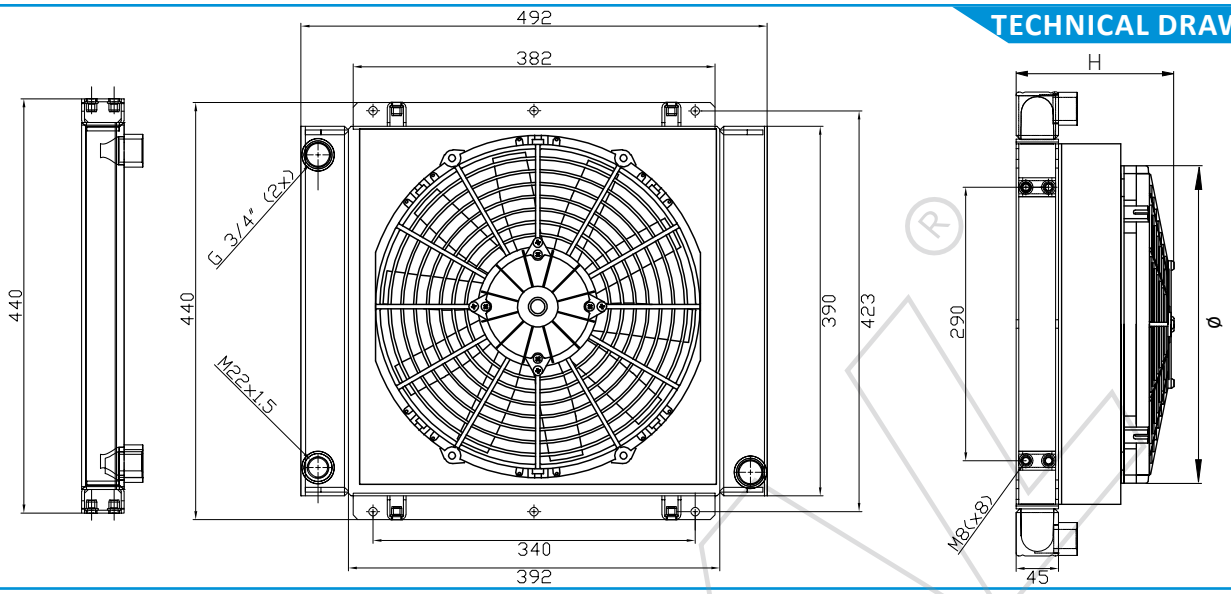
# COOLERS

## MOD. GRS 130

## GR S/D SERIES



### TECHNICAL DRAWINGS

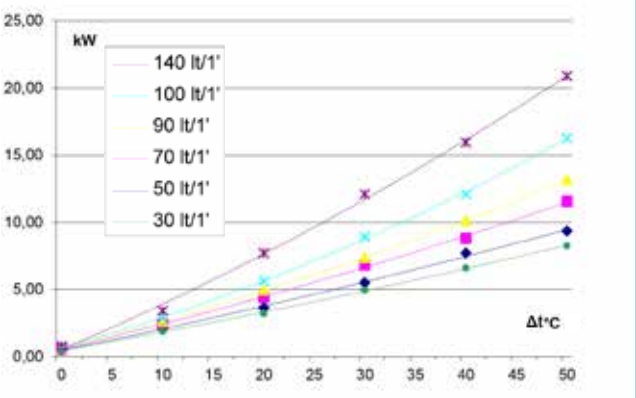


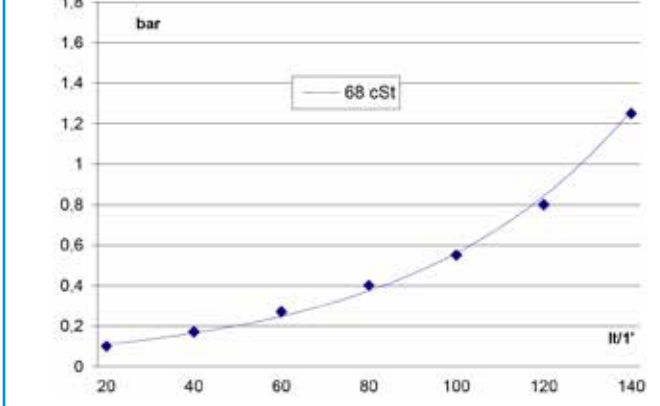

### COOLERS RANGE

| Product Code | Type of Setting | Overall H | Fan ø | Fan Power m³/h | M.R. dm³ | Power Consumpt. |
|---|---|---|---|---|---|---|
| RU0273380000 | UNCOVERED | 45 | - | - | 6,90 | - |
| RU0273380011 | 12V Suct. | 210 | 305 | 1839 | 6,90 | 16,5 A |
| RU0273380012 | 12V Blow. | 210 | 305 | 2800 | 6,90 | 15,0 A |
| RU0273380021 | 24V Suct. | 210 | 305 | 2161 | 6,90 | 10,3 A |
| RU0273380022 | 24V Blow. | 210 | 305 | 2050 | 6,90 | 9,1 A |
| RU0273380031 | 230V-50/60Hz Suct. | 175 | 300 | 3745 | 6,90 | 1,55 A |
| RU0273380032 | 230V-50/60Hz Blow. | 175 | 300 | 3745 | 6,90 | 1,55 A |
| RU0273380041 | 230/400V-50/60Hz 3FN Suct. | 175 | 300 | 3350 | 6,90 | 0,48 A |
| RU0273380042 | 230/400V-50/60Hz 3FN Blow. | 175 | 300 | 3350 | 6,90 | 0,48 A |
| RU0273380051 | Pred. Hydraulic. Suct. | 228 | 300 | 3080 | 6,90 | 0,41 kW |
| RU0273380052 | Pred. Hydraulic. Blow. | 225 | 300 | 3080 | 6,90 | 0,41 kW |

### TECH. SPEC.

| | |
|---|---|
| *Minimum Range* | Kw 8:30 lt |
| *Maximum Range* | Kw 22:140 lt |



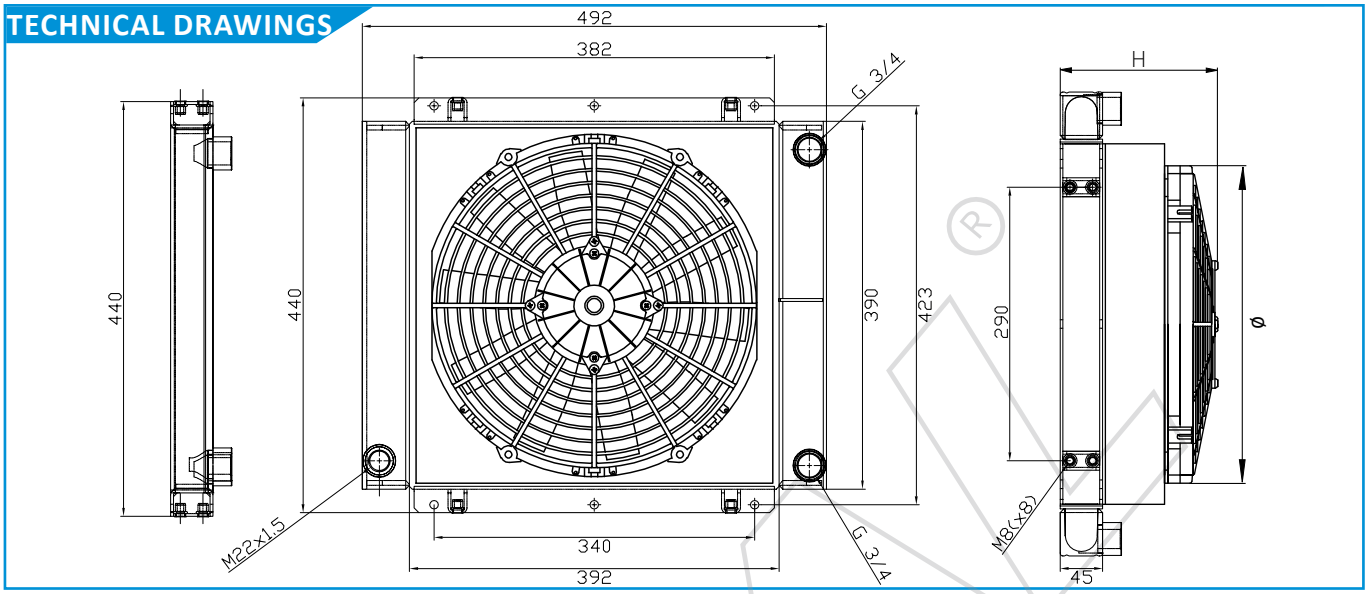



# GR S/D SERIES

## MOD. GRD 130



### TECHNICAL DRAWINGS

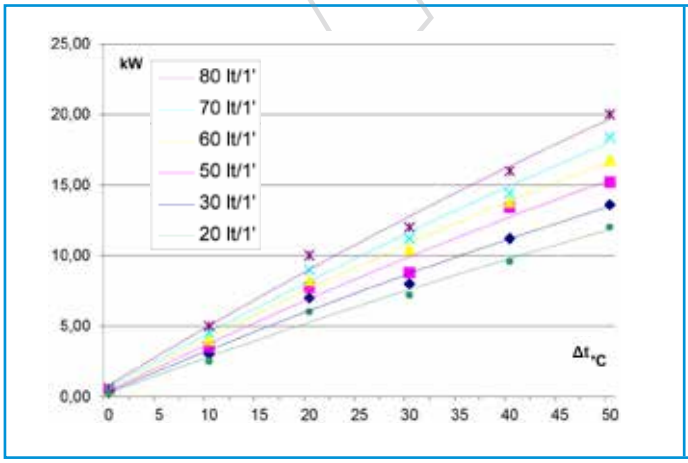


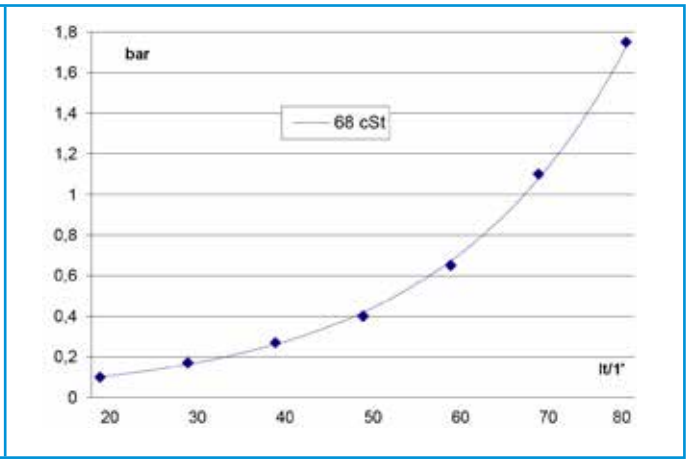

### COOLERS RANGE

| Product Code | Type of Setting | Overall H | Fan ø | Fan Power m³/h | M.R. dm³ | Power Consumpt. |
|---|---|---|---|---|---|---|
| RU0281800000 | UNCOVERED | 45 | - | - | 6,90 | - |
| RU0281800011 | 12V Suct. | 210 | 305 | 1839 | 6,90 | 16,5 A |
| RU0281800012 | 12V Blow. | 210 | 305 | 2800 | 6,90 | 15,0 A |
| RU0281800021 | 24V Suct. | 210 | 305 | 2161 | 6,90 | 10,3 A |
| RU0281800022 | 24V Blow. | 210 | 305 | 2050 | 6,90 | 9,1 A |
| RU0281800031 | 230V-50/60Hz Suct. | 175 | 300 | 3745 | 6,90 | 1,55 A |
| RU0281800032 | 230V-50/60Hz Blow. | 175 | 300 | 3745 | 6,90 | 1,55 A |
| RU0281800041 | 230/400V-50/60Hz 3FN Suct. | 175 | 300 | 3350 | 6,90 | 0,48 A |
| RU0281800042 | 230/400V-50/60Hz 3FN Blow. | 175 | 300 | 3350 | 6,90 | 0,48 A |
| RU0281800051 | Pred. Hydraulic. Suct. | 228 | 300 | 3080 | 6,90 | 0,41 kW |
| RU0281800052 | Pred. Hydraulic. Blow. | 225 | 300 | 3080 | 6,90 | 0,41 kW |

### TECH. SPEC.

| | |
|---|---|
| *Minimum Range* | Kw 12:20 lt |
| *Maximum Range* | Kw 20: 80 lt |



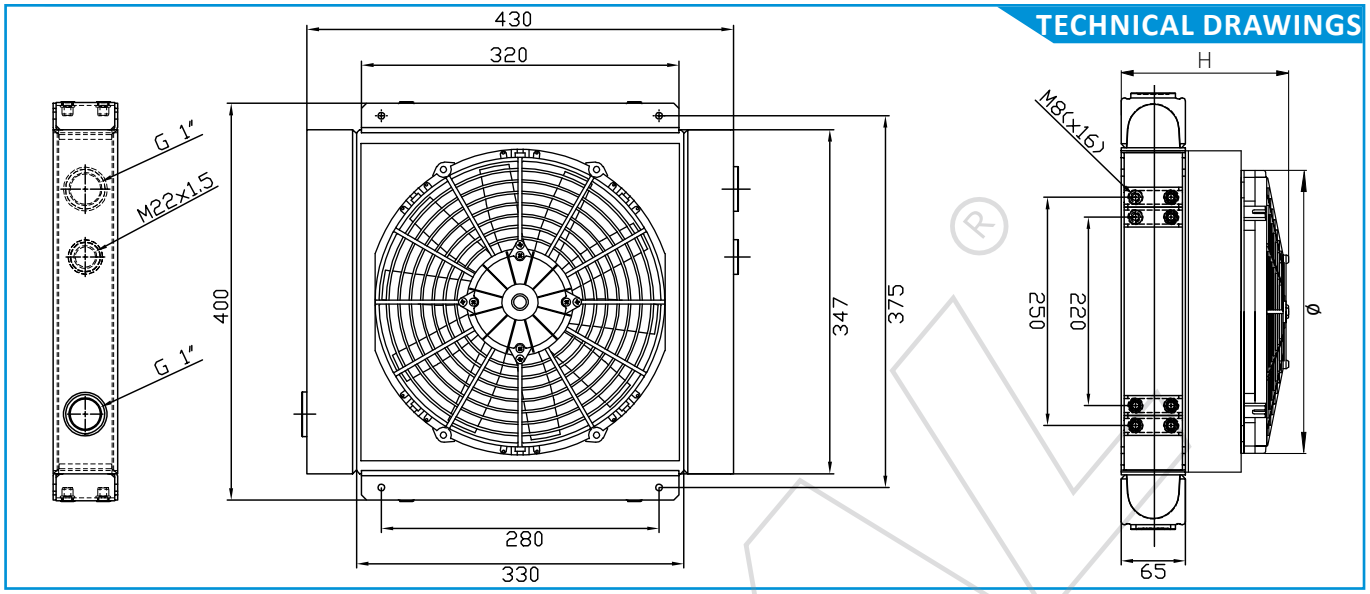
# COOLERS

## MOD. GRS 150

## GR S/D SERIES



### TECHNICAL DRAWINGS



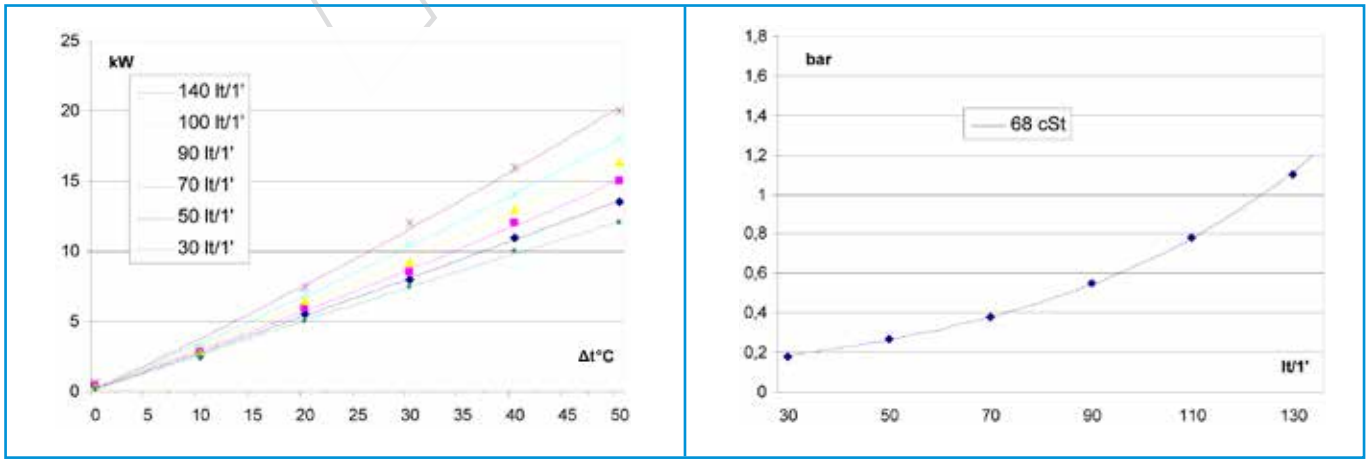

### COOLERS RANGE

| Product Code | Type of Setting | Overall H | Fan ø | Fan Power m³/h | M.R. dm³ | Power Consumpt. |
|---|---|---|---|---|---|---|
| RU0100650000 | UNCOVERED | 65 | - | - | 7,44 | - |
| RU0100650011 | 12V Suct. | 230 | 305 | 1839 | 7,44 | 16,5 A |
| RU0100650012 | 12V Blow. | 230 | 305 | 2800 | 7,44 | 15,0 A |
| RU0100650021 | 24V Suct. | 230 | 305 | 2161 | 7,44 | 10,3 A |
| RU0100650022 | 24V Blow. | 230 | 305 | 2050 | 7,44 | 9,1 A |
| RU0100650031 * | 230V-50/60Hz Suct. | 195 | 300 | 3745 | 7,44 | 1,55 A |
| RU0100650032 * | 230V-50/60Hz Blow. | 195 | 300 | 3745 | 7,44 | 1,55 A |
| RU0100650041 | 230/400V-50/60Hz 3FN Suct. | 195 | 300 | 3350 | 7,44 | 0,48 A* |
| RU0100650042 | 230/400V-50/60Hz 3FN Blow. | 195 | 300 | 3350 | 7,44 | 0,48 A* |
| RU0100650051 | Pred. Hydraulic. Suct. | 245 | 300 | 3080 | 7,44 | 0,41 kW |
| RU0100650052 | Pred. Hydraulic. Blow. | 245 | 300 | 3080 | 7,44 | 0,41 kW |

* In **SINGLE PHASE** models (*31/*32), **ADJUSTABLE THERMOSTAT** 0-90° on request

### TECH. SPEC.

| | |
|---|---|
| *Minimum Range* | Kw 12:30 lt |
| *Maximum Range* | Kw 20:140 lt |

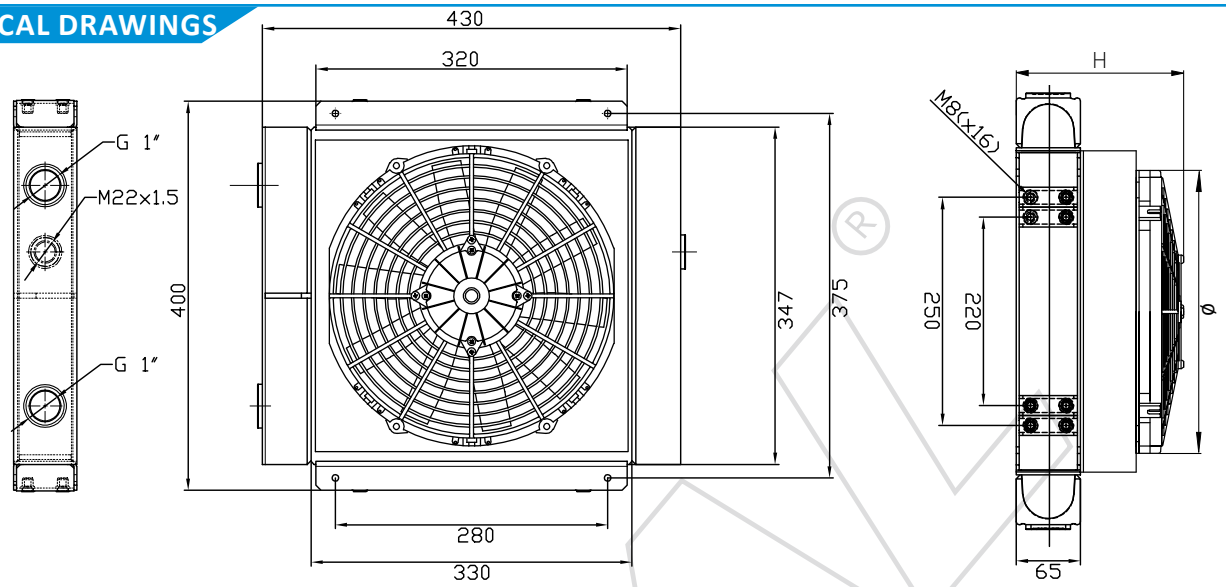


# GR S/D SERIES

## MOD. GRD 150



### TECHNICAL DRAWINGS



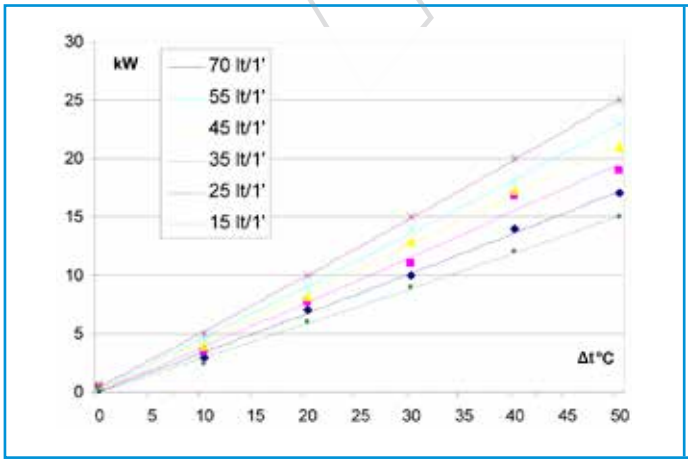

### COOLERS RANGE

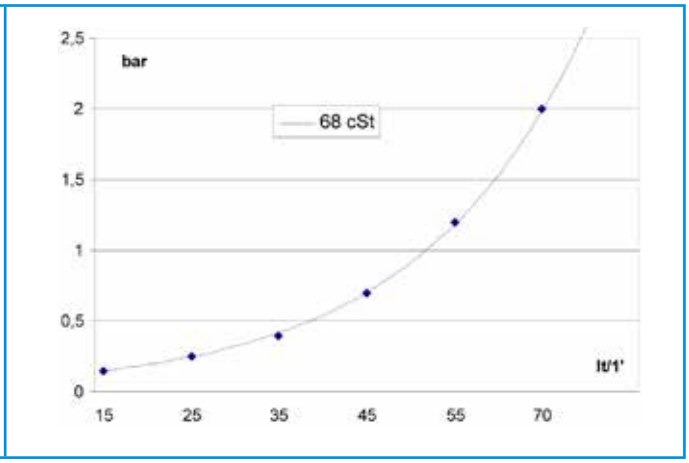
| Product Code | Type of Setting | Overall H | Fan ø | Fan Power m³/h | M.R. dm³ | Power Consumpt. |
|---|---|---|---|---|---|---|
| RU0100660000 | UNCOVERED | 65 | - | - | 7,44 | - |
| RU0100660011 | 12V Suct. | 230 | 305 | 1839 | 7,44 | 16,5 A |
| RU0100660012 | 12V Blow. | 230 | 305 | 2800 | 7,44 | 15,0 A |
| RU0100660021 | 24V Suct. | 230 | 305 | 2161 | 7,44 | 10,3 A |
| RU0100660022 | 24V Blow. | 230 | 305 | 2050 | 7,44 | 9,1 A |
| RU0100660031 * | 230V-50/60Hz Suct. | 195 | 300 | 3745 | 7,44 | 1,55 A |
| RU0100660032 * | 230V-50/60Hz Blow. | 195 | 300 | 3745 | 7,44 | 1,55 A |
| RU0100660041 | 230/400V-50/60Hz 3FN Suct. | 195 | 300 | 3350 | 7,44 | 0,48 A* |
| RU0100660042 | 230/400V-50/60Hz 3FN Blow. | 195 | 300 | 3350 | 7,44 | 0,48 A* |
| RU0100660051 | Pred. Hydraulic. Suct. | 245 | 300 | 3080 | 7,44 | 0,41 kW |
| RU0100660052 | Pred. Hydraulic. Blow. | 245 | 300 | 3080 | 7,44 | 0,41 kW |

* In **SINGLE PHASE** models (*31/*32), **ADJUSTABLE THERMOSTAT** 0-90° on request

### TECH. SPEC.

| | |
|---|---|
| *Minimum Range* | Kw 15:15 lt |
| *Maximum Range* | Kw 25:70 lt |



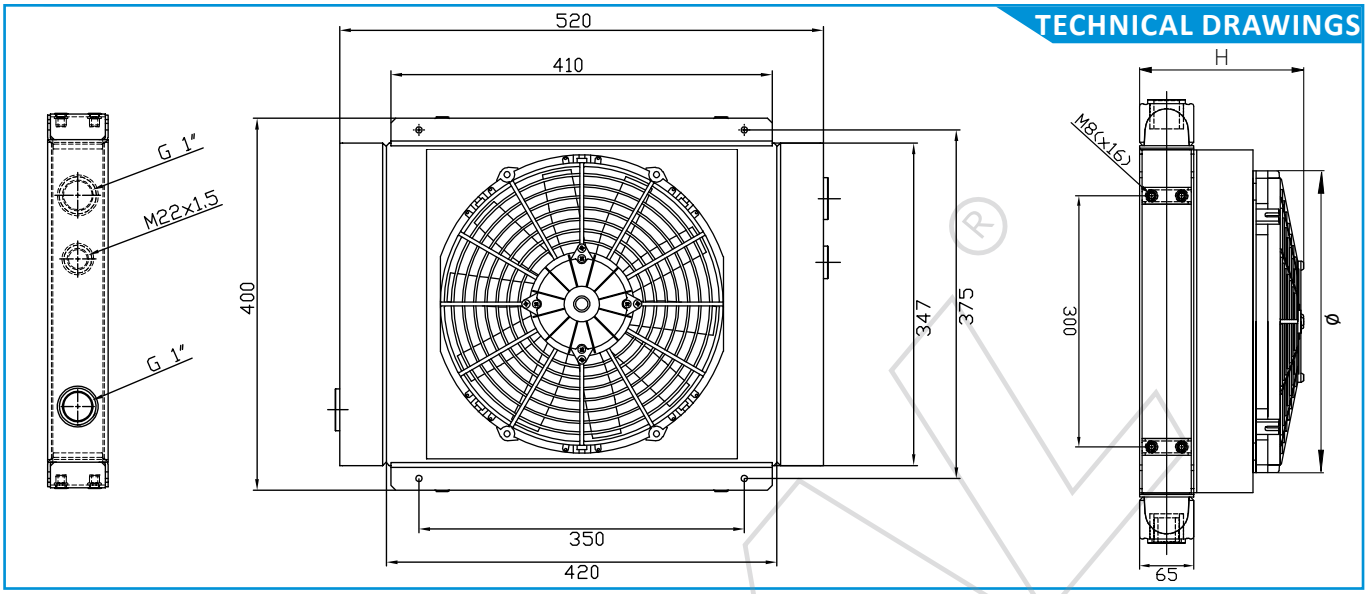
# COOLERS

## MOD. GRS 200

## GR S/D SERIES



### TECHNICAL DRAWINGS



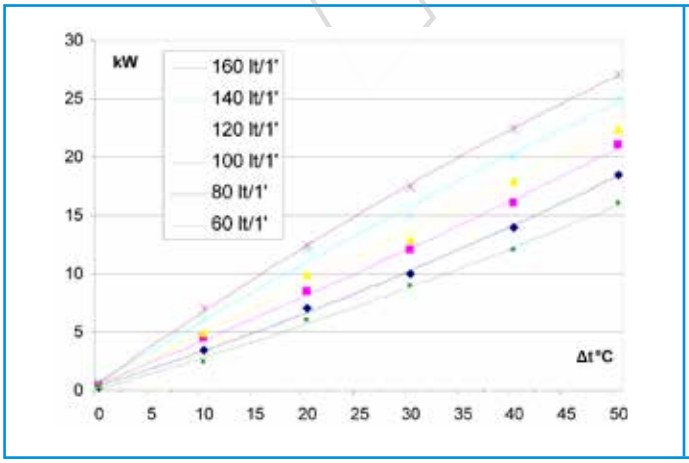

### COOLERS RANGE

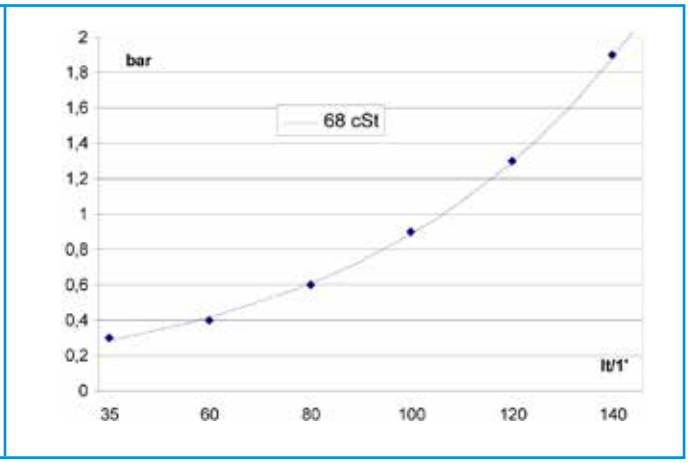
| Product Code | Type of Setting | Overall H | Fan ø | Fan Power m³/h | M.R. dm³ | Power Consumpt. |
|---|---|---|---|---|---|---|
| RU0100670000 | UNCOVERED | 65 | - | - | 9,47 | - |
| RU0100670011 | 12V Suct. | 230 | 305 | 1839 | 9,47 | 16,5 A |
| RU0100670012 | 12V Blow. | 230 | 305 | 2800 | 9,47 | 15,0 A |
| RU0100670021 | 24V Suct. | 230 | 305 | 2161 | 9,47 | 10,3 A |
| RU0100670022 | 24V Blow. | 230 | 305 | 2050 | 9,47 | 9,1 A |
| RU0100670031 * | 230V-50/60Hz Suct. | 195 | 300 | 3745 | 9,47 | 1,55 A |
| RU0100670032 * | 230V-50/60Hz Blow. | 195 | 300 | 3745 | 9,47 | 1,55 A |
| RU0100670041 | 230/400V-50/60Hz 3FN Suct. | 195 | 300 | 3350 | 9,47 | 0,48 A |
| RU0100670042 | 230/400V-50/60Hz 3FN Blow. | 195 | 300 | 3350 | 9,47 | 0,48 A |
| RU0100670051 | Pred. Hydraulic. Suct. | 245 | 300 | 3080 | 9,47 | 0,41 kW |
| RU0100670052 | Pred. Hydraulic. Blow. | 245 | 300 | 3080 | 9,47 | 0,41 kW |

* In **SINGLE PHASE** models (*31/*32), **ADJUSTABLE THERMOSTAT** 0-90° on request

### TECH. SPEC.

| | |
|---|---|
| *Minimum Range* | Kw 16:60 lt |
| *Maximum Range* | Kw 27:160 lt |



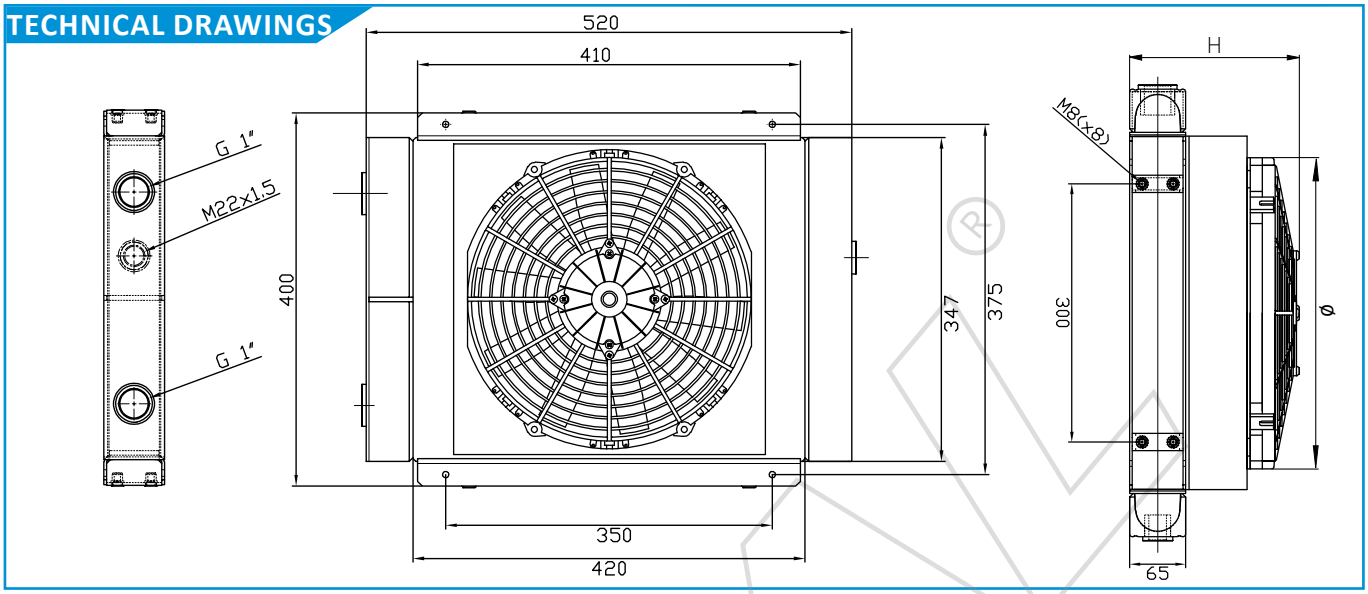



# GR S/D SERIES

## MOD. GRD 200



### TECHNICAL DRAWINGS



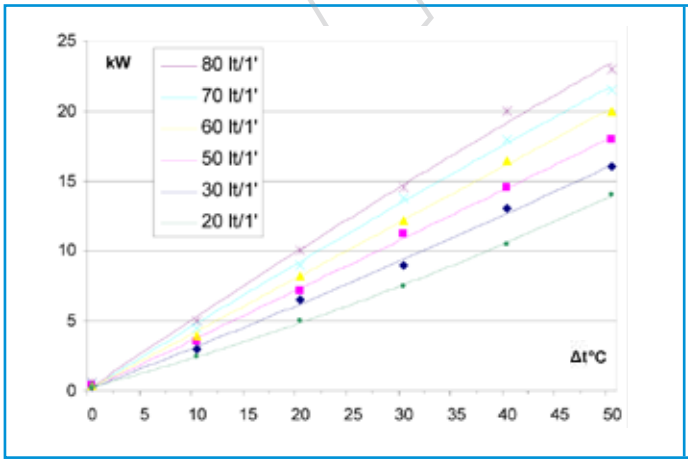

### COOLERS RANGE

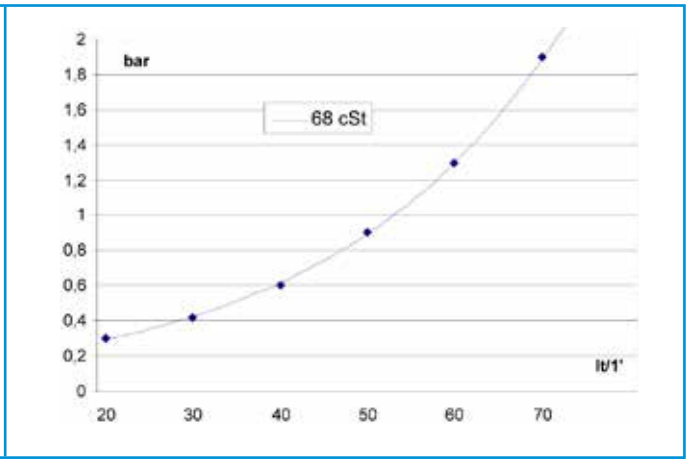
| Product Code | Type of Setting | Overall H | Fan ø | Fan Power m³/h | M.R. dm³ | Power Consumpt. |
|---|---|---|---|---|---|---|
| RU0100680000 | UNCOVERED | 65 | - | - | 9,47 | - |
| RU0100680011 | 12V Suct. | 230 | 305 | 1839 | 9,47 | 16,5 A |
| RU0100680012 | 12V Blow. | 230 | 305 | 2800 | 9,47 | 15,0 A |
| RU0100680021 | 24V Suct. | 230 | 305 | 2161 | 9,47 | 10,3 A |
| RU0100680022 | 24V Blow. | 230 | 305 | 2050 | 9,47 | 9,1 A |
| RU0100680031 * | 230V-50/60Hz Suct. | 195 | 300 | 3745 | 9,47 | 1,55 A |
| RU0100680032 * | 230V-50/60Hz Blow. | 195 | 300 | 3745 | 9,47 | 1,55 A |
| RU0100680041 | 230/400V-50/60Hz 3FN Suct. | 195 | 300 | 3350 | 9,47 | 0,48 A |
| RU0100680042 | 230/400V-50/60Hz 3FN Blow. | 195 | 300 | 3350 | 9,47 | 0,48 A |
| RU0100680051 | Pred. Hydraulic. Suct. | 245 | 300 | 3080 | 9,47 | 0,41 kW |
| RU0100680052 | Pred. Hydraulic. Blow. | 245 | 300 | 3080 | 9,47 | 0,41 kW |

* In **SINGLE PHASE** models (*31/*32), **ADJUSTABLE THERMOSTAT** 0-90° on request

### TECH. SPEC.

| | |
|---|---|
| *Minimum Range* | Kw 14:20 lt |
| *Maximum Range* | Kw 23:80 lt |



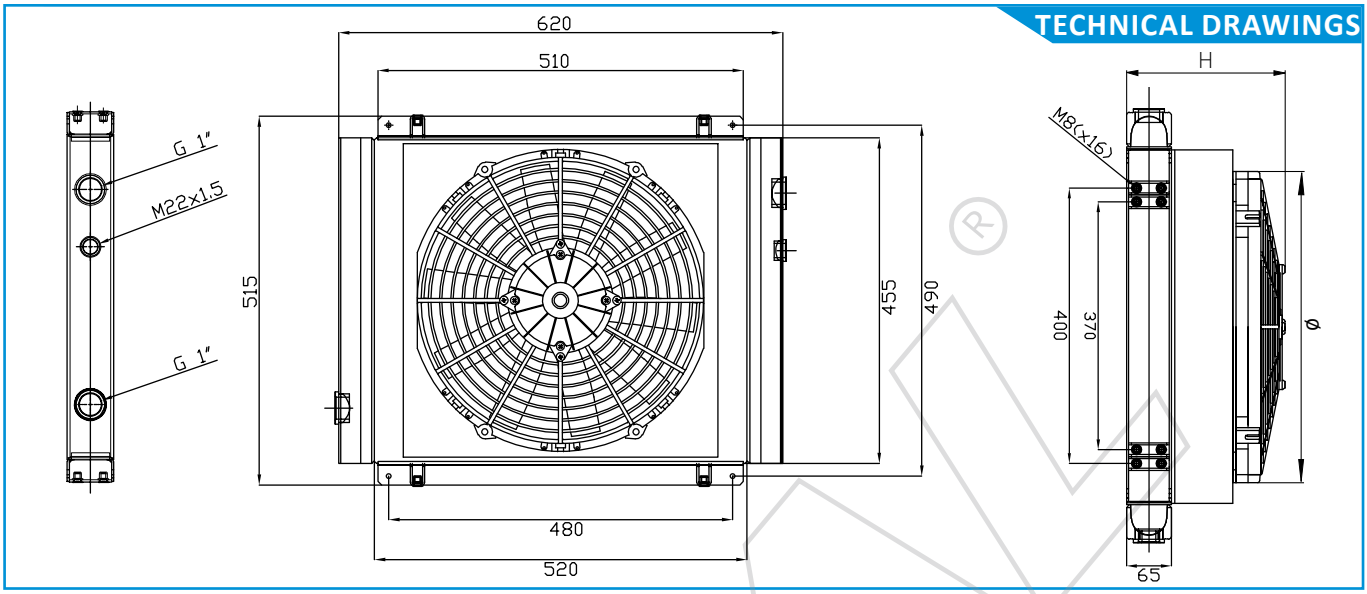



# MOD. GRS 300

## GR S/D SERIES



### TECHNICAL DRAWINGS



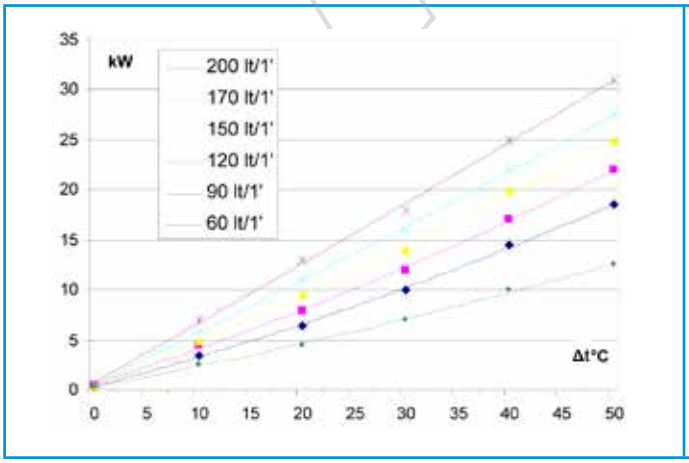

### COOLERS RANGE

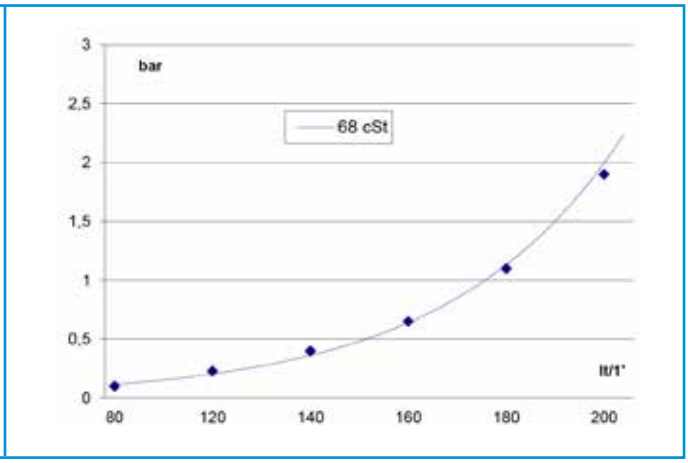
| Product Code | Type of Setting | Overall H | Fan ø | Fan Power m³/h | M.R. dm³ | Power Consumpt. |
|---|---|---|---|---|---|---|
| RU0100690000 | UNCOVERED | 65 | - | - | 15,38 | - |
| RU0100690011 | 12V Suct. | 230 | 385 | 2212 | 15,38 | 16,0 A |
| RU0100690012 | 12V Blow. | 230 | 385 | 2412 | 15,38 | 16,2 A |
| RU0100690021 | 24V Suct. | 230 | 385 | 2577 | 15,38 | 9,3 A |
| RU0100690022 | 24V Blow. | 230 | 385 | 2609 | 15,38 | 9,0 A |
| RU0100690031 * | 230V-50/60Hz Suct. | 220 | 400 | 4950 | 15,38 | 1,06 A |
| RU0100690032 * | 230V-50/60Hz Blow. | 220 | 400 | 4950 | 15,38 | 1,06 A |
| RU0100690041 | 230/400V-50/60Hz 3FN Suct. | 220 | 400 | 4615 | 15,38 | 0,39 A |
| RU0100690042 | 230/400V-50/60Hz 3FN Blow. | 220 | 400 | 4615 | 15,38 | 0,39 A |
| RU0100690051 | Pred. Hydraulic. Suct. | 245 | 400 | 7050 | 15,38 | 1,5 kW |
| RU0100690052 | Pred. Hydraulic. Blow. | 245 | 400 | 7050 | 15,38 | 1,5 kW |

* In **SINGLE PHASE** models (*31/*32), **ADJUSTABLE THERMOSTAT** 0-90° on request

### TECH. SPEC.

| | |
|---|---|
| *Minimum Range* | Kw 12:60 lt |
| *Maximum Range* | Kw 32:200 lt |



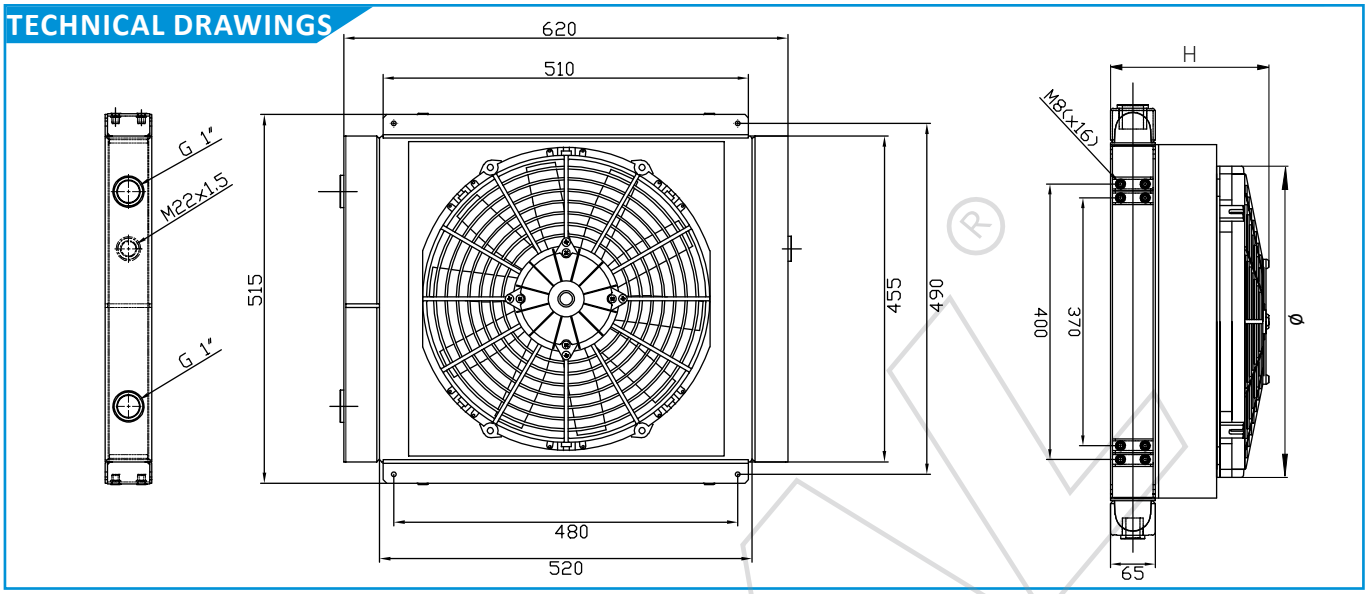



# GR S/D SERIES

## MOD. GRD 300



### TECHNICAL DRAWINGS



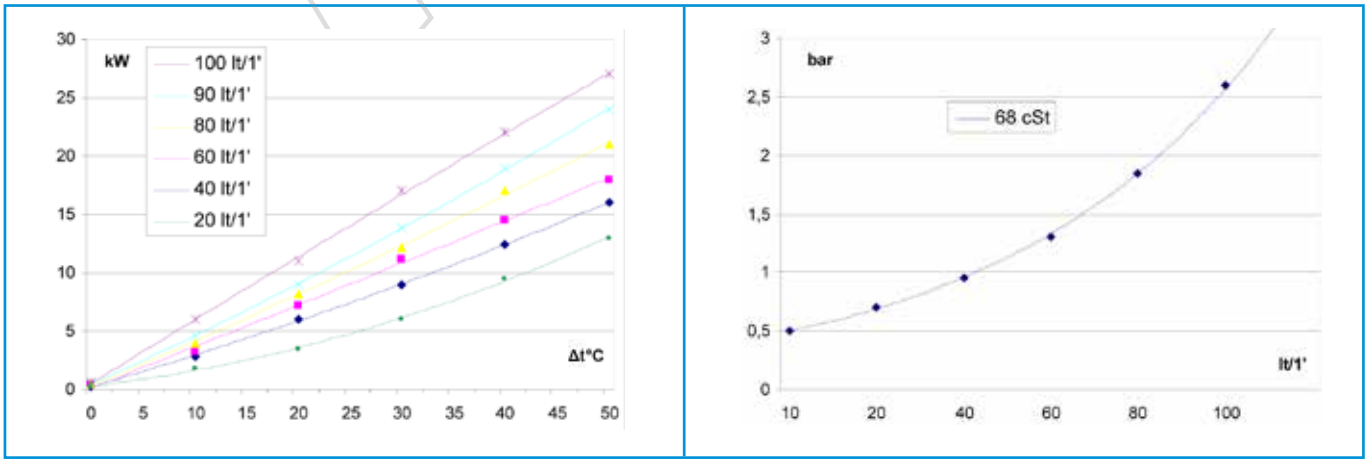

### COOLERS RANGE

| Product Code | Type of Setting | Overall H | Fan ø | Fan Power m³/h | M.R. dm³ | Power Consumpt. |
|---|---|---|---|---|---|---|
| RU0100700000 | UNCOVERED | 65 | - | - | 15,38 | - |
| RU0100700011 | 12V Suct. | 230 | 385 | 2212 | 15,38 | 16,0 A |
| RU0100700012 | 12V Blow. | 230 | 385 | 2412 | 15,38 | 16,2 A |
| RU0100700021 | 24V Suct. | 230 | 385 | 2577 | 15,38 | 9,3 A |
| RU0100700022 | 24V Blow. | 230 | 385 | 2609 | 15,38 | 9,0 A |
| RU0100700031 * | 230V-50/60Hz Suct. | 220 | 400 | 4950 | 15,38 | 1,06 A |
| RU0100700032 * | 230V-50/60Hz Blow. | 220 | 400 | 4950 | 15,38 | 1,06 A |
| RU0100700041 | 230/400V-50/60Hz 3FN Suct. | 220 | 400 | 4615 | 15,38 | 0,39 A |
| RU0100700042 | 230/400V-50/60Hz 3FN Blow. | 220 | 400 | 4615 | 15,38 | 0,39 A |
| RU0100700051 | Pred. Hydraulic. Suct. | 245 | 400 | 7050 | 15,38 | 1,5 kW |
| RU0100700052 | Pred. Hydraulic. Blow. | 245 | 400 | 7050 | 15,38 | 1,5 kW |

* In **SINGLE PHASE** models (*31/*32), **ADJUSTABLE THERMOSTAT** 0-90° on request

### TECH. SPEC.

| | |
|---|---|
| *Minimum Range* | Kw 13:20 lt |
| *Maximum Range* | Kw 27:100 lt |



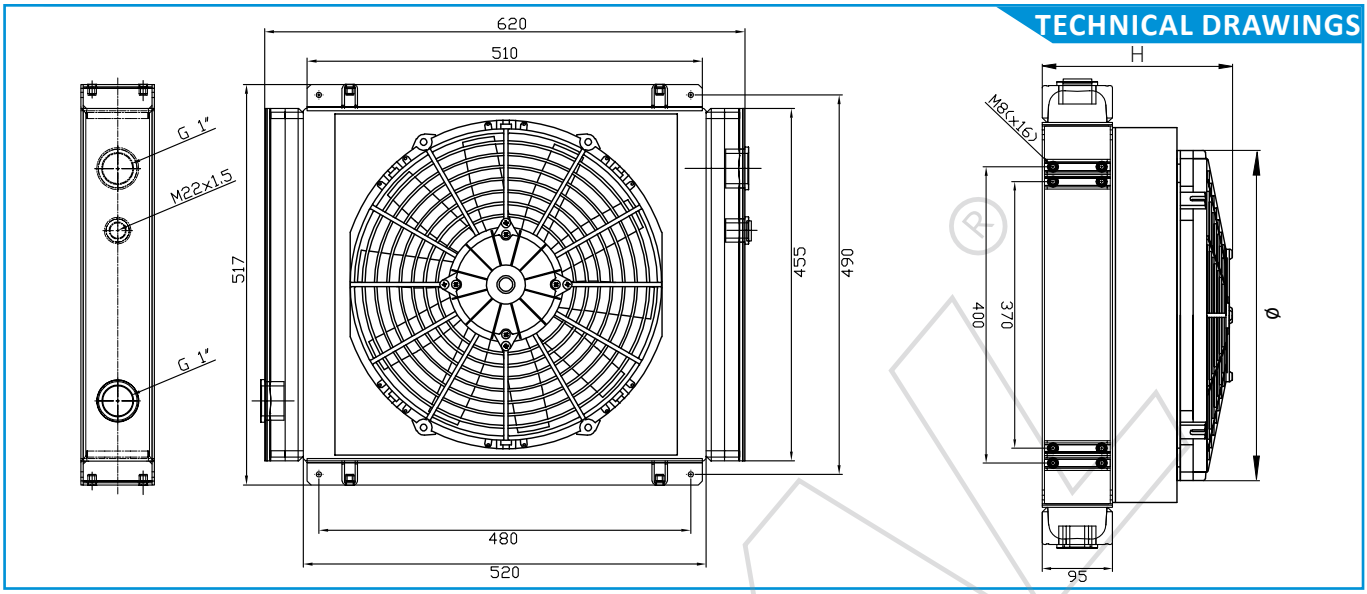
# COOLERS

## MOD. GRS 500

## GR S/D SERIES



### TECHNICAL DRAWINGS



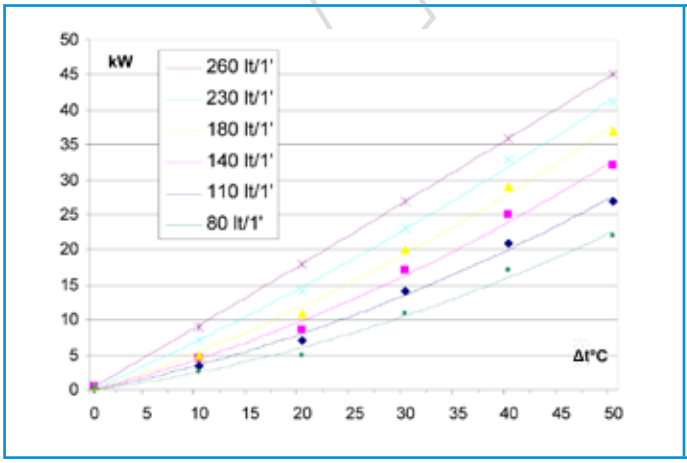

### COOLERS RANGE

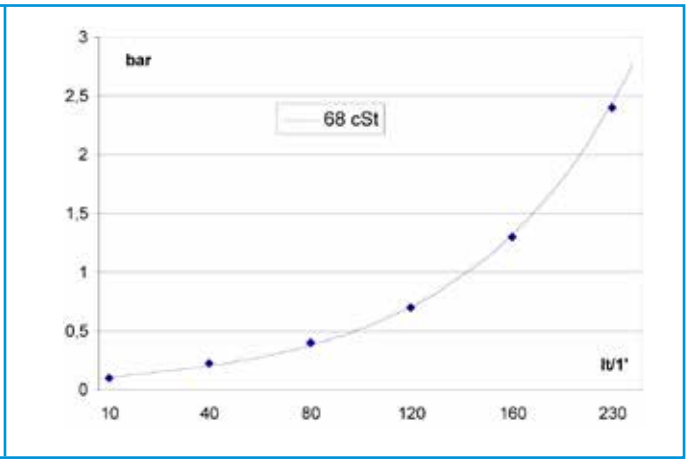
| Product Code | Type of Setting | Overall H | Fan ø | Fan Power m³/h | M.R. dm³ | Power Consumpt. |
|---|---|---|---|---|---|---|
| RU0100710000 | UNCOVERED | 95 | - | - | 22,48 | - |
| RU0100710011 | 12V Suct. | 260 | 385 | 2212 | 22,48 | 16,0 A |
| RU0100710012 | 12V Blow. | 260 | 385 | 2412 | 22,48 | 16,2 A |
| RU0100710021 | 24V Suct. | 260 | 385 | 2577 | 22,48 | 9,3 A |
| RU0100710022 | 24V Blow. | 260 | 385 | 2609 | 22,48 | 9,0 A |
| RU0100710031 * | 230V-50/60Hz Suct. | 250 | 400 | 4950 | 22,48 | 1,06 A |
| RU0100710032 * | 230V-50/60Hz Blow. | 250 | 400 | 4950 | 22,48 | 1,06 A |
| RU0100710041 | 230/400V-50/60Hz 3FN Suct. | 250 | 400 | 4615 | 22,48 | 0,39 A |
| RU0100710042 | 230/400V-50/60Hz 3FN Blow. | 250 | 400 | 4615 | 22,48 | 0,39 A |
| RU0100710051 | Pred. Hydraulic. Suct. | 270 | 400 | 7050 | 22,48 | 1,5 kW |
| RU0100710052 | Pred. Hydraulic. Blow. | 270 | 400 | 7050 | 22,48 | 1,5 kW |

* In **SINGLE PHASE** models (*31/*32), **ADJUSTABLE THERMOSTAT** 0-90° on request

### TECH. SPEC.

| | |
|---|---|
| *Minimum Range* | Kw 22:80 lt |
| *Maximum Range* | Kw 45:260 lt |



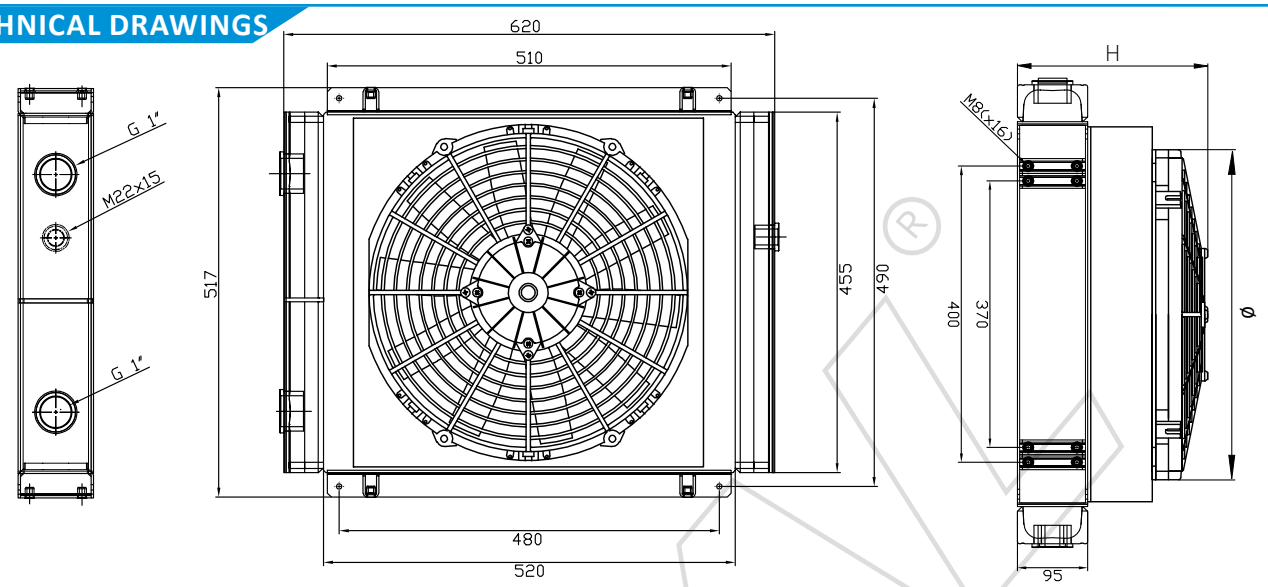



# GR S/D SERIES

## MOD. GRD 500



### TECHNICAL DRAWINGS



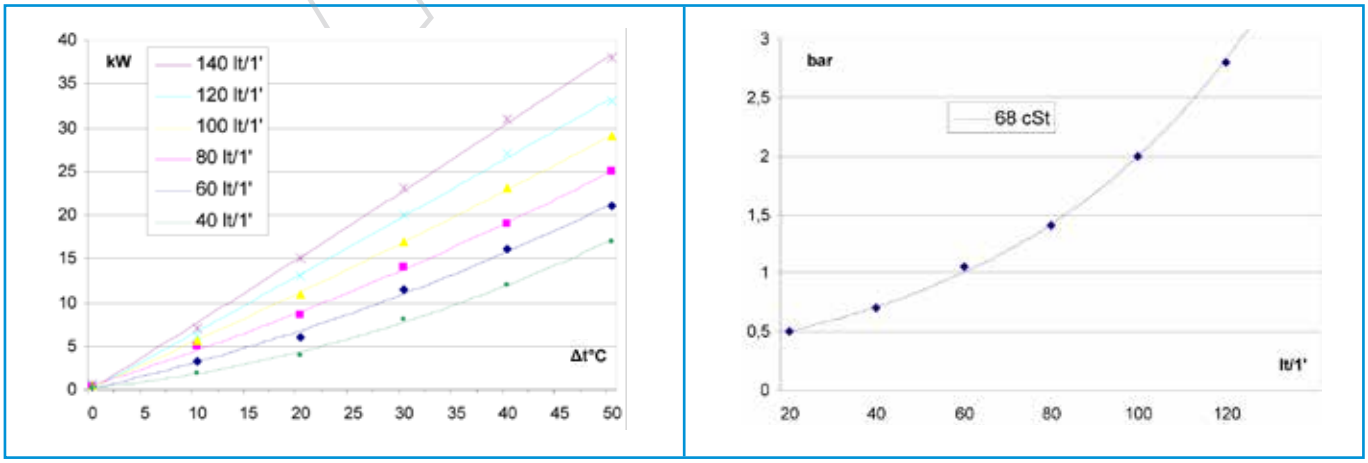

### COOLERS RANGE

| Product Code | Type of Setting | Overall H | Fan ø | Fan Power m³/h | M.R. dm³ | Power Consumpt. |
|---|---|---|---|---|---|---|
| RU0100720000 | UNCOVERED | 95 | - | - | 22,48 | - |
| RU0100720011 | 12V Suct. | 260 | 385 | 2212 | 22,48 | 16,0 A |
| RU0100720012 | 12V Blow. | 260 | 385 | 2412 | 22,48 | 16,2 A |
| RU0100720021 | 24V Suct. | 260 | 385 | 2577 | 22,48 | 9,3 A |
| RU0100720022 | 24V Blow. | 260 | 385 | 2609 | 22,48 | 9,0 A |
| RU0100720031 * | 230V-50/60Hz Suct. | 250 | 400 | 4950 | 22,48 | 1,06 A |
| RU0100720032 * | 230V-50/60Hz Blow. | 250 | 400 | 4950 | 22,48 | 1,06 A |
| RU0100720041 | 230/400V-50/60Hz 3FN Suct. | 250 | 400 | 4615 | 22,48 | 0,39 A |
| RU0100720042 | 230/400V-50/60Hz 3FN Blow. | 250 | 400 | 4615 | 22,48 | 0,39 A |
| RU0100720051 | Pred. Hydraulic. Suct. | 270 | 400 | 7050 | 22,48 | 1,5 kW |
| RU0100720052 | Pred. Hydraulic. Blow. | 270 | 400 | 7050 | 22,48 | 1,5 kW |

* In **SINGLE PHASE** models (*31/*32), **ADJUSTABLE THERMOSTAT** 0-90° on request

### TECH. SPEC.

| | |
|---|---|
| *Minimum Range* | Kw 17:40 lt |
| *Maximum Range* | Kw 38:140 lt |

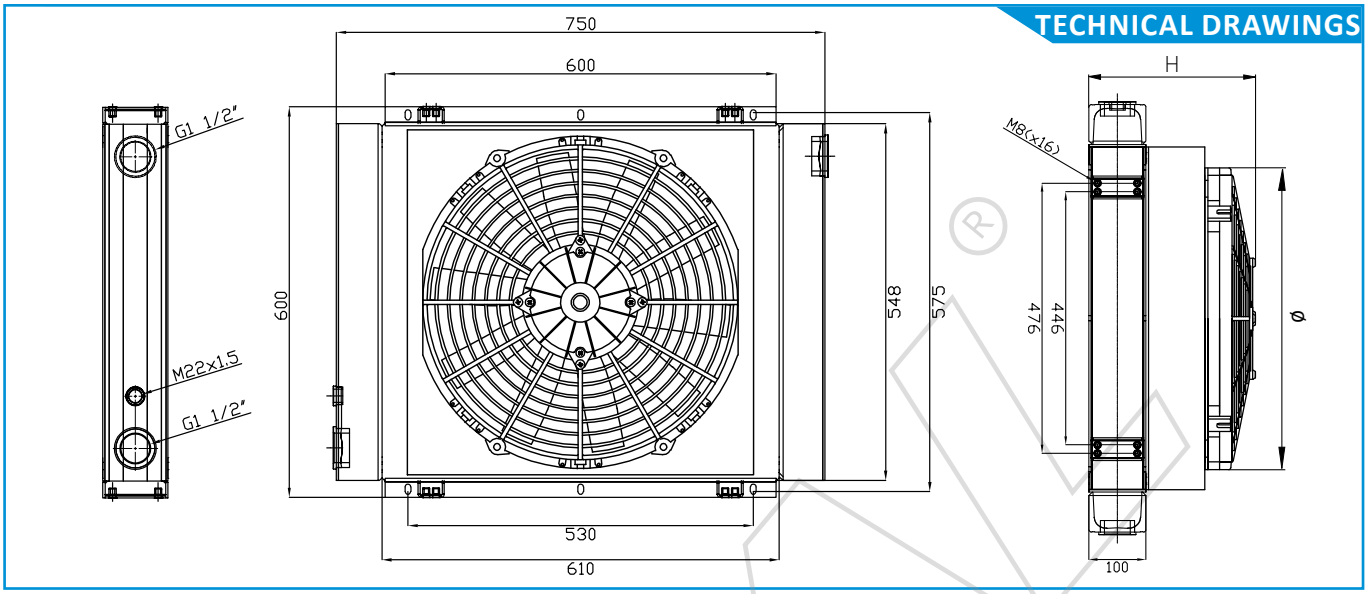


# MOD. GRS 700

## GR S/D SERIES



### TECHNICAL DRAWINGS



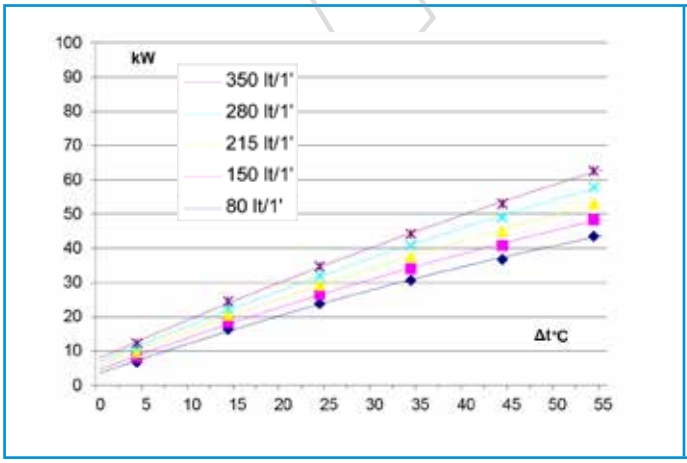

### COOLERS RANGE

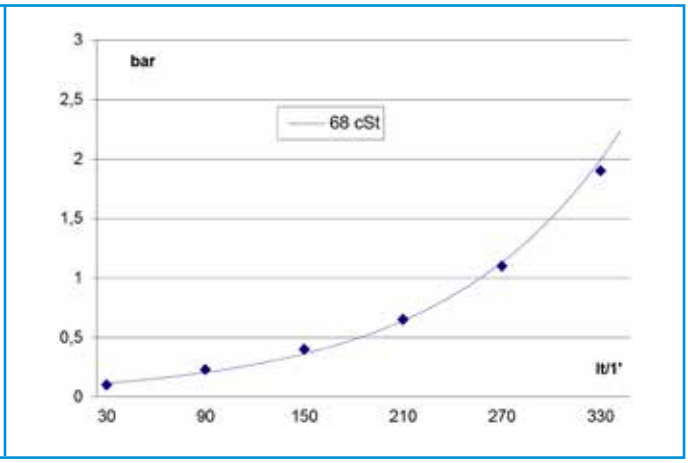
| Product Code | Type of Setting | Overall H | Fan ø | Fan Power m³/h | M.R. dm³ | Power Consum. |
|---|---|---|---|---|---|---|
| RU0190280000 | UNCOVERED | 95 | - | - | 33,43 | - |
| RU0190280011 | 12V Suct. | 290 | 2x305 | 3678 | 33,43 | 33,0 A |
| RU0190280012 | 12V Blow. | 290 | 2x305 | 5600 | 33,43 | 30,0 A |
| RU0190280021 | 24V Suct. | 290 | 2x305 | 4322 | 33,43 | 20,6 A |
| RU0190280022 | 24V Blow. | 290 | 2x305 | 4100 | 33,43 | 18,2 A |
| RU0190280031/32* | 230V-50/60Hz Suct. | 255 | 2x300 | 7490 | 33,43 | 3,1 A |
| RU0190280031/32* | 230V-50/60Hz Blow. | 255 | 500 | 9850 | 33,43 | 3,88 |
| RU0190280041/42 | 230/400V-50/60Hz 3FN Suct. | 255 | 500 | 10400 | 33,43 | 1,60 A |
| RU0190280041/42 | 230/400V-50/60Hz 3FN Blow. | 255 | 2x300 | 6700 | 33,43 | 1,60 A |
| RU0190280051 | Pred. Hydraulic. Suct. | 305 | 500 | 13300 | 33,43 | 4,11 kW |
| RU0190280052 | Pred. Hydraulic. Blow. | 305 | 500 | 13300 | 33,43 | 4,11 kW |

* In **SINGLE PHASE** models (*31/*32), **ADJUSTABLE THERMOSTAT** 0-90° on request

### TECH. SPEC.

| | |
|---|---|
| *Minimum Range* | Kw 42:80 lt |
| *Maximum Range* | Kw 62:350 lt |



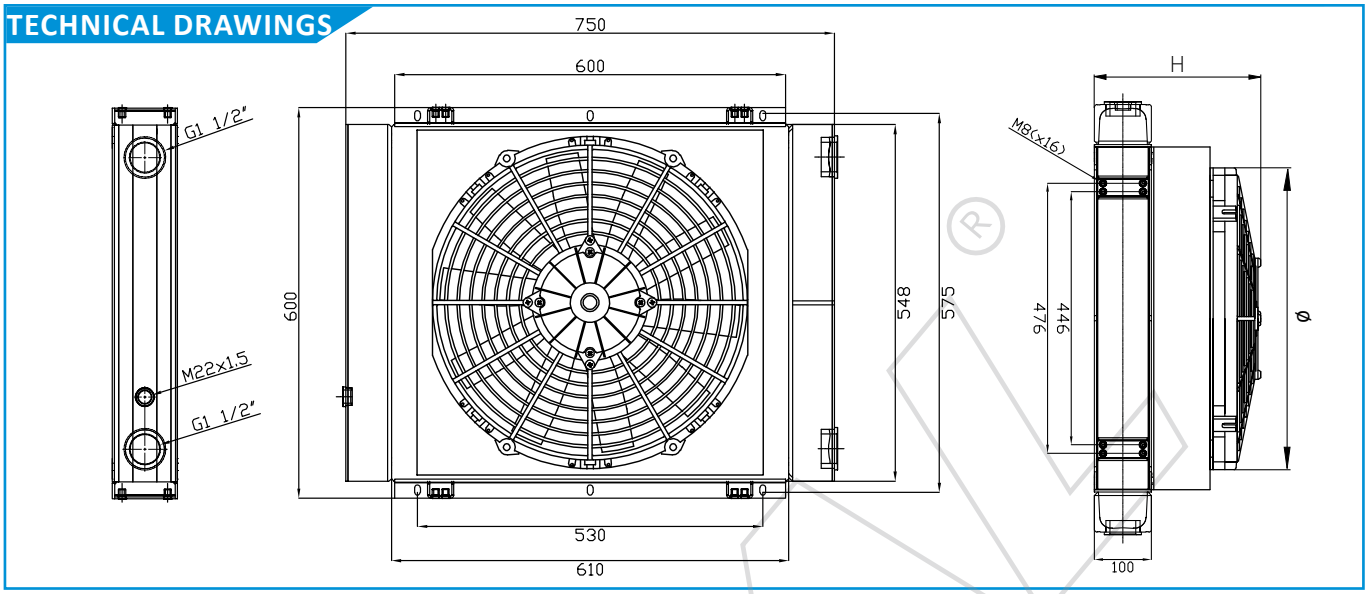



# GR S/D SERIES

## MOD. GRD 700



### TECHNICAL DRAWINGS



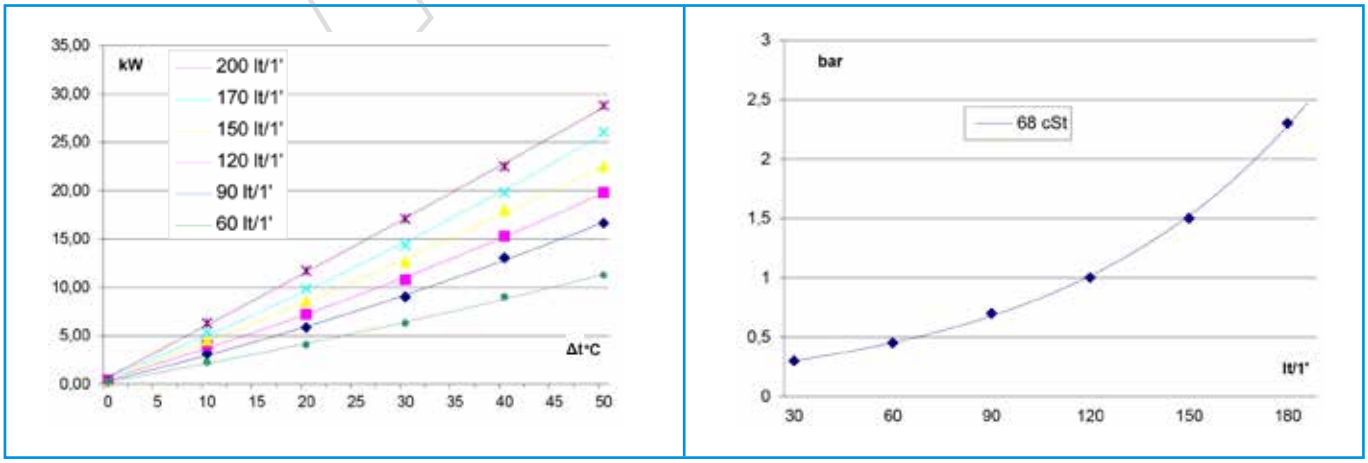

### COOLERS RANGE

| Product Code | Type of Setting | Overall H | Fan ø | Fan Power m³/h | M.R. dm³ | Power Consum. |
|---|---|---|---|---|---|---|
| RU0286090000 | UNCOVERED | 95 | - | - | 33,43 | - |
| RU0286090011 | 12V Suct. | 290 | 2x305 | 3678 | 33,43 | 33,0 A |
| RU0286090012 | 12V Blow. | 290 | 2x305 | 5600 | 33,43 | 30,0 A |
| RU0286090021 | 24V Suct. | 290 | 2x305 | 4322 | 33,43 | 20,6 A |
| RU0286090022 | 24V Blow. | 290 | 2x305 | 4100 | 33,43 | 18,2 A |
| RU0286090031/32* | 230V-50/60Hz Suct. | 255 | 2x300 | 7490 | 33,43 | 3,1 A |
| RU0286090031/32* | 230V-50/60Hz Blow. | 255 | 500 | 9850 | 33,43 | 3,88 |
| RU0286090041/42 | 230/400V-50/60Hz 3FN Suct. | 255 | 500 | 10400 | 33,43 | 1,60 A |
| RU0286090041/42 | 230/400V-50/60Hz 3FN Blow. | 255 | 2x300 | 6700 | 33,43 | 1,60 A |
| RU0286090051 | Pred. Hydraulic. Suct. | 305 | 500 | 13300 | 33,43 | 4,11 kW |
| RU0286090052 | Pred. Hydraulic. Blow. | 305 | 500 | 13300 | 33,43 | 4,11 kW |

* In **SINGLE PHASE** models (*31/*32), **ADJUSTABLE THERMOSTAT** 0-90° on request

### TECH. SPEC.

| | |
|---|---|
| *Minimum Range* | Kw 36:60 lt |
| *Maximum Range* | Kw 52:200 lt |



# COOLERS

RAAL®
complete cooling solutions

## BY-PASS SERIES



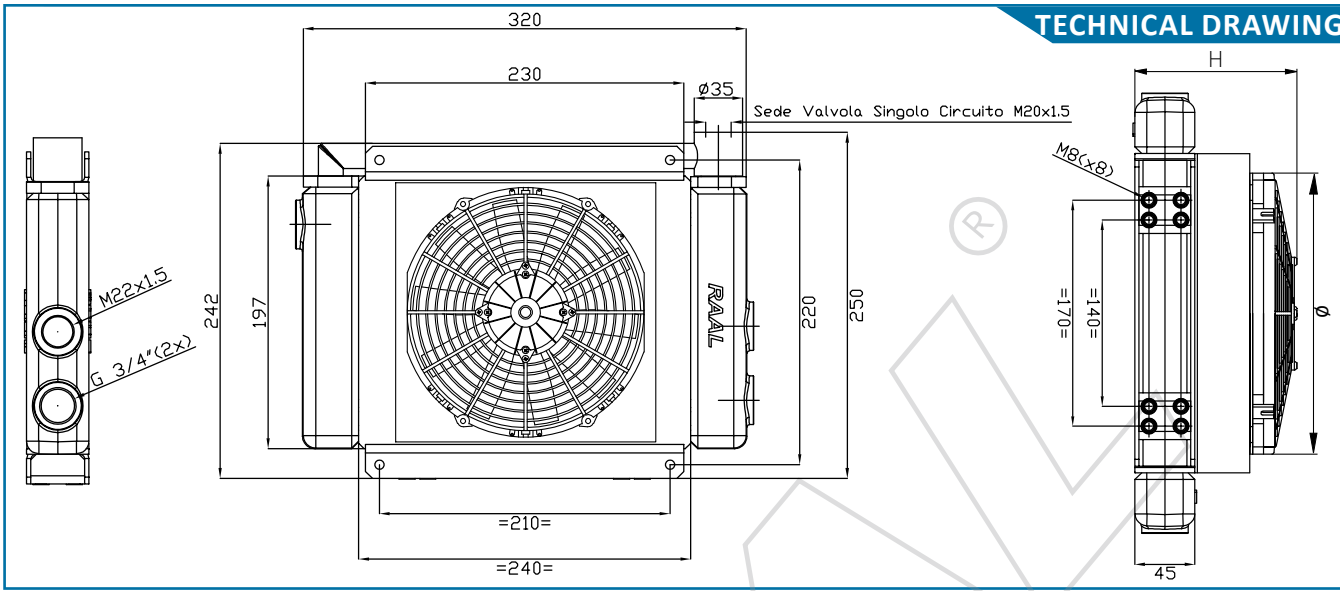

MIRROR LINE

# MOD. BY-PASS GRS 50

BY-PASS SERIES



## TECHNICAL DRAWINGS



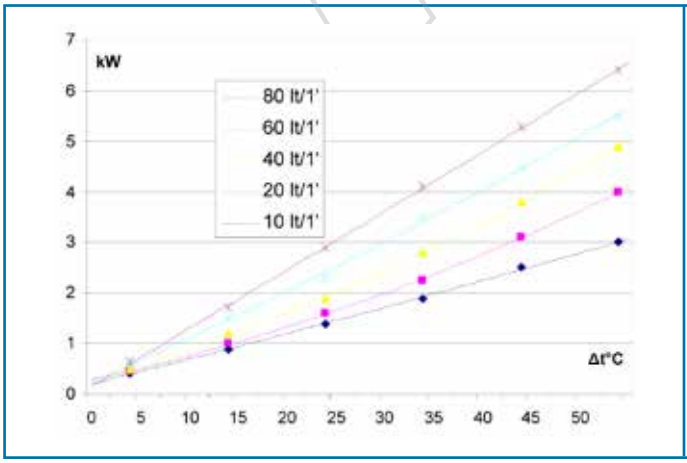

## COOLERS RANGE

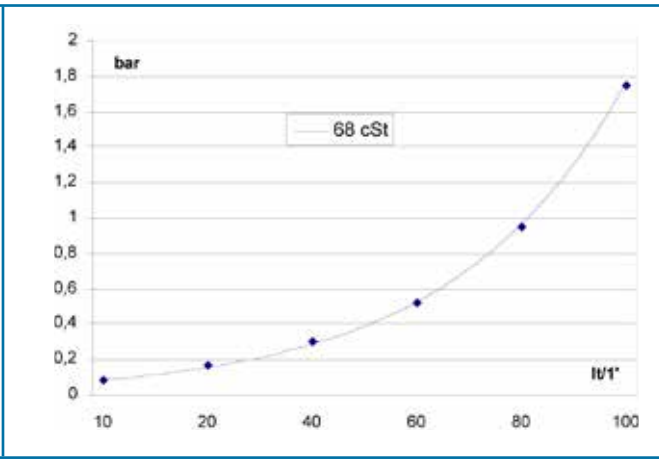
| Product Code | Type of Setting | Overall H | Fan ø | Fan Power m³/h | M.R. dm³ | Power Consumpt. |
|---|---|---|---|---|---|---|
| RU020111B000 | UNCOVERED | 45 | - | - | 2,13 | - |
| RU020111B011 | 12V Suct. | 140 | 190 | 446 | 2,13 | 6,4 A |
| RU020111B012 | 12V Blow. | 140 | 190 | 497 | 2,13 | 6,4 A |
| RU020111B021 | 24V Suct. | 140 | 190 | 419 | 2,13 | 2,8 A |
| RU020111B022 | 24V Blow. | 140 | 190 | 505 | 2,13 | 3,3 A |
| RU020111B031 * | 230V-50/60Hz Suct. | 135 | 200 | 1025 | 2,13 | 0,34 A |
| RU020111B032 * | 230V-50/60Hz Blow. | 135 | 200 | 1025 | 2,13 | 0,34 A |
| RU020111B041 | 230/400V-50/60Hz 3FN Suct. | 135 | 200 | 1020 | 2,13 | 0,13 A |
| RU020111B042 | 230/400V-50/60Hz 3FN Blow. | 135 | 200 | 1020 | 2,13 | 0,13 A |
| RU020111B051 | Pred. Hydraulic. Suct. | 145 | 195 | 958 | 2,13 | 0,7 kW |
| RU020111B052 | Pred. Hydraulic. Blow. | 145 | 195 | 958 | 2,13 | 0,7 kW |

* In **SINGLE PHASE** models (*31/*32), **ADJUSTABLE THERMOSTAT** 0-90° on request

## TECH. SPEC.

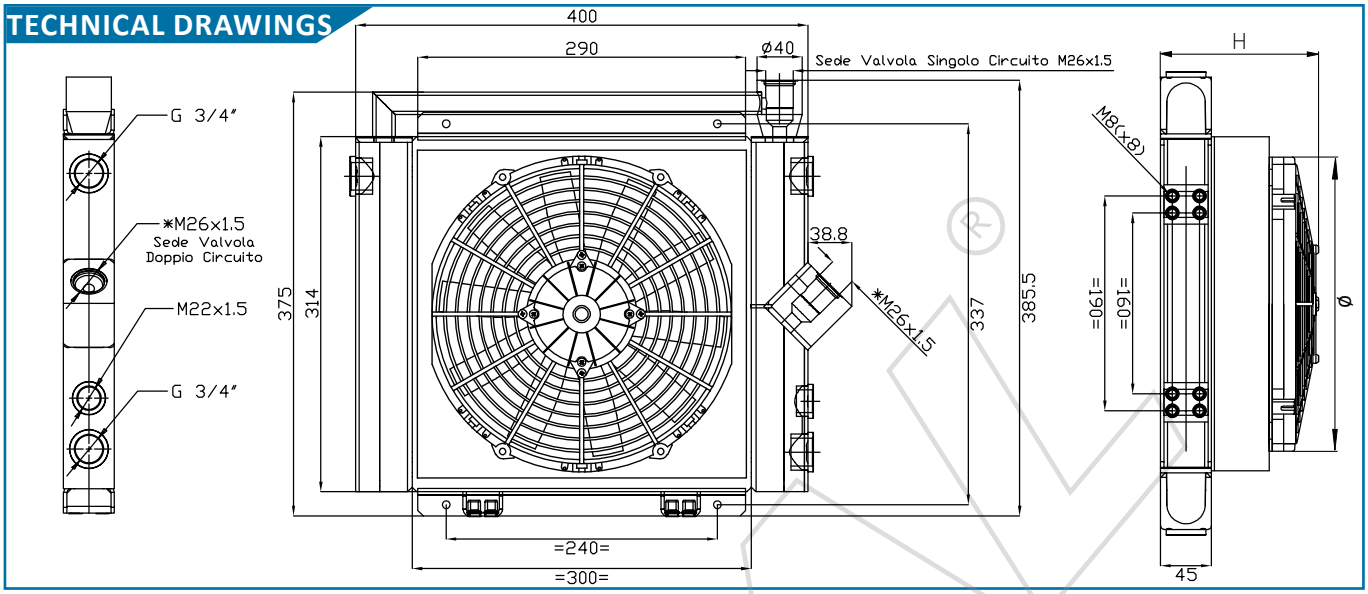
| | |
|---|---|
| *Minimum Range* | Kw 3:10 lt |
| *Maximum Range* | Kw 6,5:80 lt |



# BY-PASS SERIES MOD. BY-PASS GRS/D 100

## TECHNICAL DRAWINGS





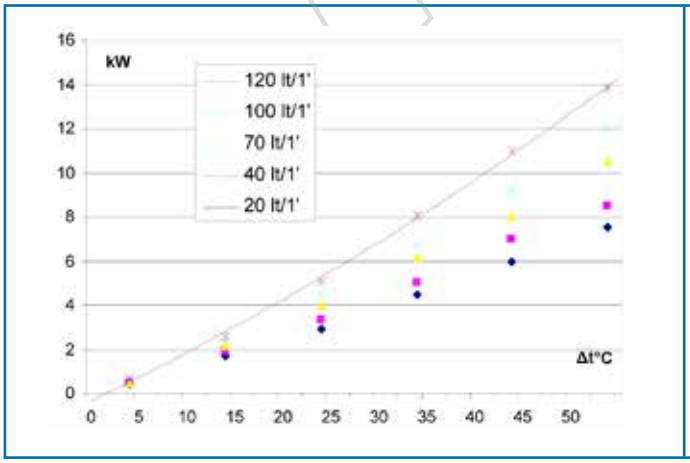

## COOLERS RANGE

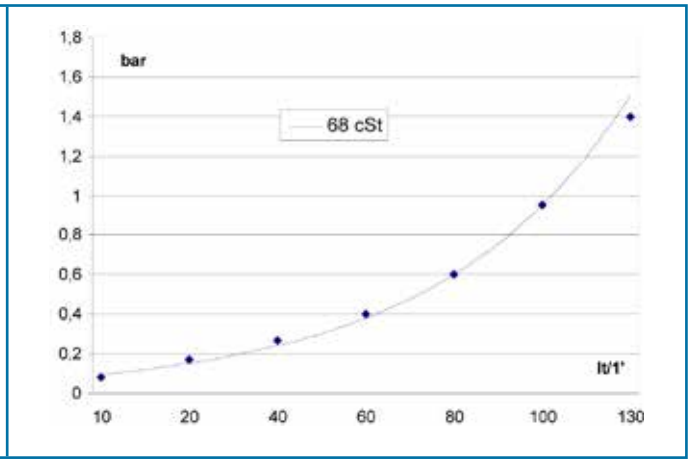
| Product Code | Type of Setting | Overall H | Fan ø | Fan Power m³/h | M.R. dm³ | Power Consumpt. |
|---|---|---|---|---|---|---|
| RU020112B000 | UNCOVERED | 45 | - | - | 4,24 | - |
| RU020112B011 | 12V Suct. | 210 | 305 | 1839 | 4,24 | 16,5 A |
| RU020112B012 | 12V Blow. | 210 | 305 | 2800 | 4,24 | 15,0 A |
| RU020112B021 | 24V Suct. | 210 | 305 | 2161 | 4,24 | 10,3 A |
| RU020112B022 | 24V Blow. | 210 | 305 | 2050 | 4,24 | 9,1 A |
| RU020112B031 * | 230V-50/60Hz Suct. | 175 | 300 | 3745 | 4,24 | 1,55 A |
| RU020112B032 * | 230V-50/60Hz Blow. | 175 | 300 | 3745 | 4,24 | 1,55 A |
| RU020112B041 | 230/400V-50/60Hz 3FN Suct. | 175 | 300 | 3350 | 4,24 | 0,48 A |
| RU020112B042 | 230/400V-50/60Hz 3FN Blow. | 175 | 300 | 3350 | 4,24 | 0,48 A |
| RU020112B051 | Pred. Hydraulic. Suct. | 228 | 300 | 3080 | 4,24 | 0,41 kW |
| RU020112B052 | Pred. Hydraulic. Blow. | 225 | 300 | 3080 | 4,24 | 0,41 kW |

* In **SINGLE PHASE** models (*31/*32), **ADJUSTABLE THERMOSTAT** 0-90° on request

## TECH. SPEC.

| | |
|---|---|
| *Minimum Range* | Kw 7,5:20 lt |
| *Maximum Range* | Kw 14:120 lt |



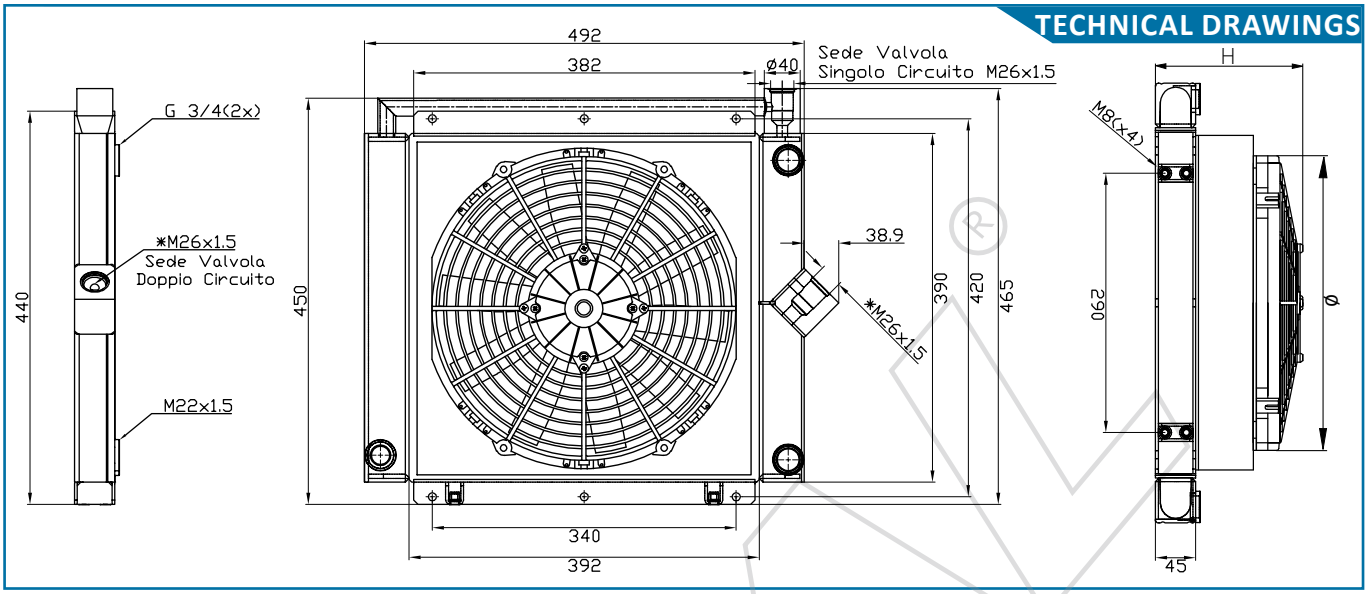



# MOD. BY-PASS GRS/D 130

BY-PASS SERIES



## TECHNICAL DRAWINGS



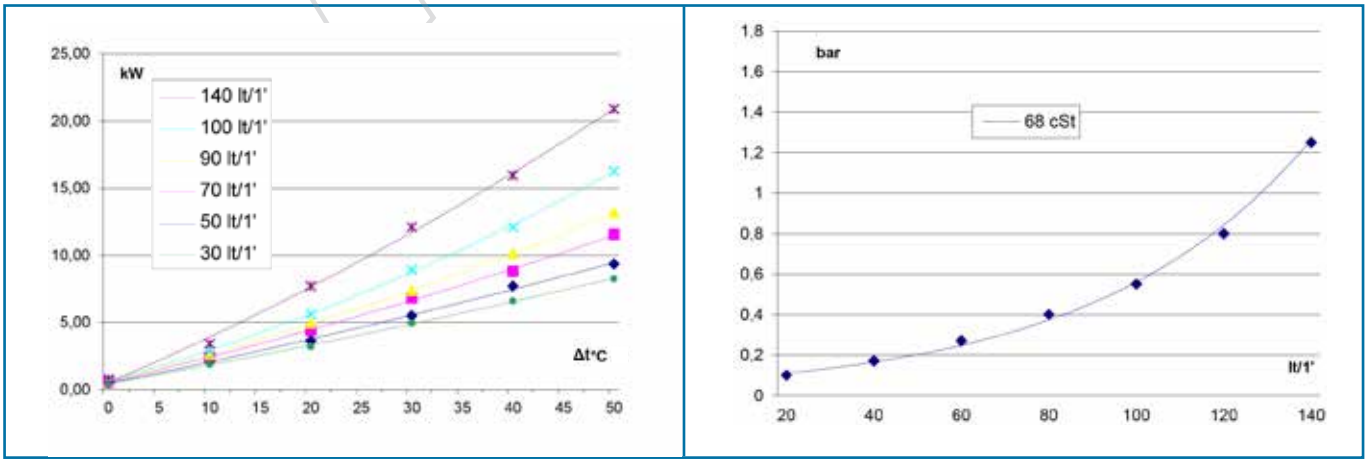

## COOLERS RANGE

| Product Code | Type of Setting | Overall H | Fan ø | Fan Power m³/h | M.R. dm³ | Power Consumpt. |
|---|---|---|---|---|---|---|
| RU034596B000 | UNCOVERED | 45 | - | - | 6,90 | - |
| RU034596B011 | 12V Suct. | 210 | 305 | 1839 | 6,90 | 16,5 A |
| RU034596B012 | 12V Blow. | 210 | 305 | 2800 | 6,90 | 15,0 A |
| RU034596B021 | 24V Suct. | 210 | 305 | 2161 | 6,90 | 10,3 A |
| RU034596B022 | 24V Blow. | 210 | 305 | 2050 | 6,90 | 9,1 A |
| RU034596B031 * | 230V-50/60Hz Suct. | 175 | 300 | 3745 | 6,90 | 1,55 A |
| RU034596B032 * | 230V-50/60Hz Blow. | 175 | 300 | 3745 | 6,90 | 1,55 A |
| RU034596B041 | 230/400V-50/60Hz 3FN Suct. | 175 | 300 | 3350 | 6,90 | 0,48 A |
| RU034596B042 | 230/400V-50/60Hz 3FN Blow. | 175 | 300 | 3350 | 6,90 | 0,48 A |
| RU034596B051 | Pred. Hydraulic. Suct. | 228 | 300 | 3080 | 6,90 | 0,41 kW |
| RU034596B052 | Pred. Hydraulic. Blow. | 225 | 300 | 3080 | 6,90 | 0,41 kW |

* In **SINGLE PHASE** models (*31/*32), **ADJUSTABLE THERMOSTAT** 0-90° on request

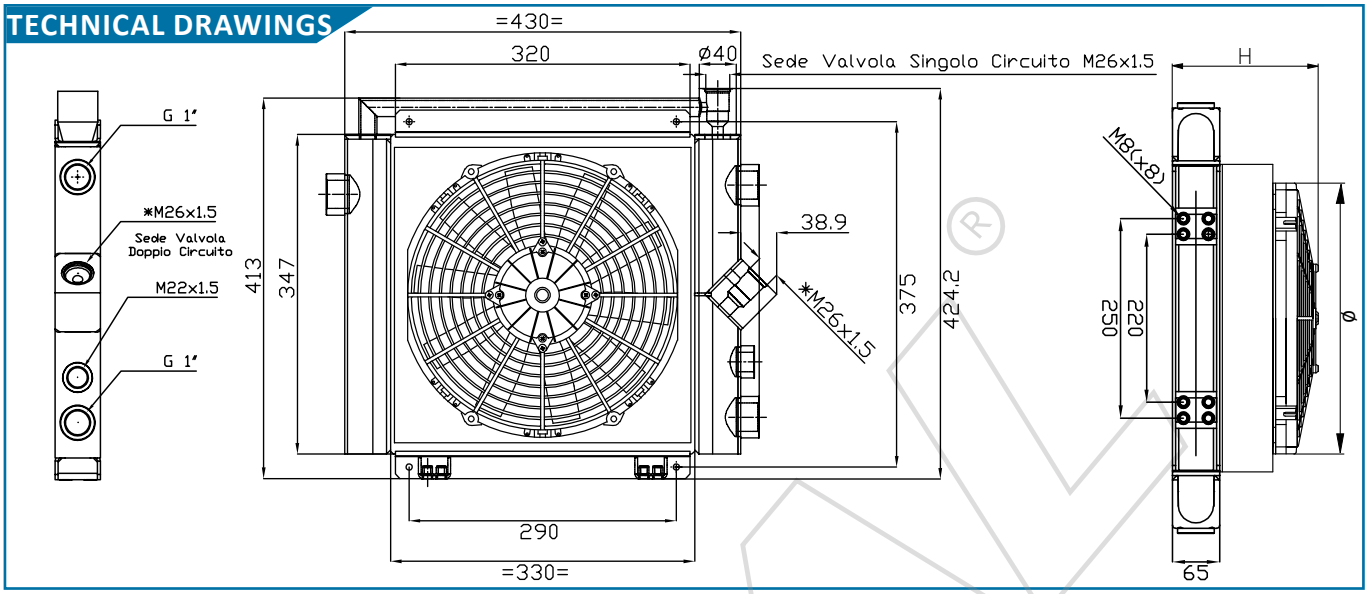
## TECH. SPEC.

| | |
|---|---|
| *Minimum Range* | Kw 8:30 lt |
| *Maximum Range* | Kw 22:140 lt |



# BY-PASS SERIES MOD. BY-PASS GRS/D 150

## TECHNICAL DRAWINGS





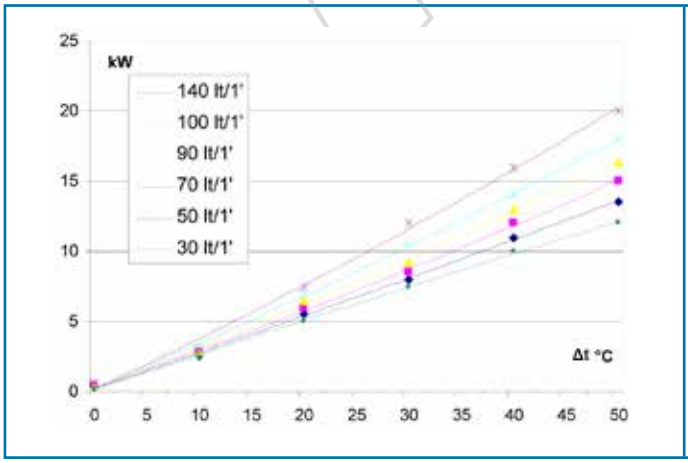

## COOLERS RANGE

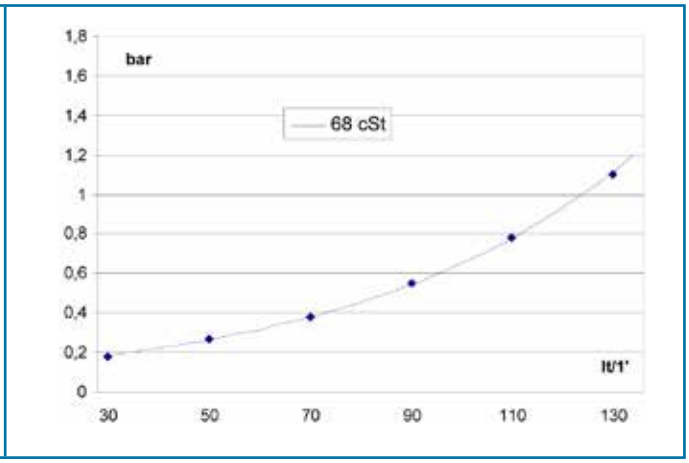
| Product Code | Type of Setting | Overall H | Fan ø | Fan Power m³/h | M.R. dm³ | Power Consumpt. |
|---|---|---|---|---|---|---|
| RU020113B000 | UNCOVERED | 65 | - | - | 7,44 | - |
| RU020113B011 | 12V Suct. | 230 | 305 | 1839 | 7,44 | 16,5 A |
| RU020113B012 | 12V Blow. | 230 | 305 | 2800 | 7,44 | 15,0 A |
| RU020113B021 | 24V Suct. | 230 | 305 | 2161 | 7,44 | 10,3 A |
| RU020113B022 | 24V Blow. | 230 | 305 | 2050 | 7,44 | 9,1 A |
| RU020113B031 * | 230V-50/60Hz Suct. | 195 | 300 | 3745 | 7,44 | 1,55 A |
| RU020113B032 * | 230V-50/60Hz Blow. | 195 | 300 | 3745 | 7,44 | 1,55 A |
| RU020113B041 | 230/400V-50/60Hz 3FN Suct. | 195 | 300 | 3350 | 7,44 | 0,48 A |
| RU020113B042 | 230/400V-50/60Hz 3FN Blow. | 195 | 300 | 3350 | 7,44 | 0,48 A |
| RU020113B051 | Pred. Hydraulic. Suct. | 245 | 300 | 3080 | 7,44 | 0,41 kW |
| RU020113B052 | Pred. Hydraulic. Blow. | 245 | 300 | 3080 | 7,44 | 0,41 kW |

* In **SINGLE PHASE** models (*31/*32), **ADJUSTABLE THERMOSTAT** 0-90° on request

## TECH. SPEC.

| | |
|---|---|
| *Minimum Range* | Kw 12:30 lt |
| *Maximum Range* | Kw 20:140 lt |



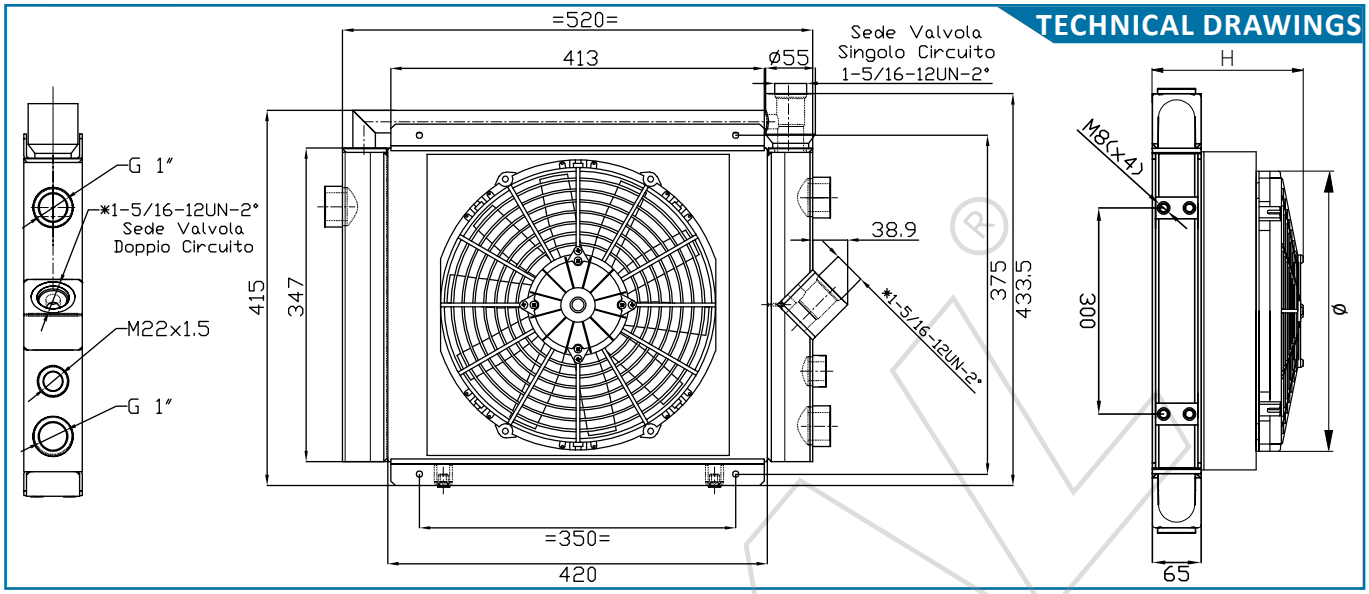



# MOD. BY-PASS GRS/D 200

BY-PASS SERIES



## TECHNICAL DRAWINGS



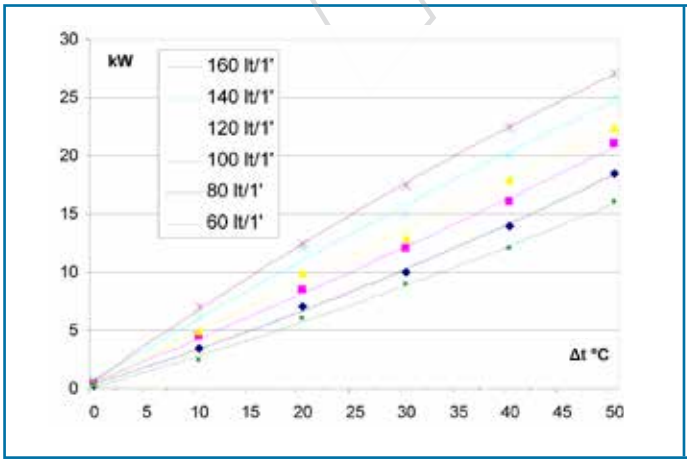

## COOLERS RANGE

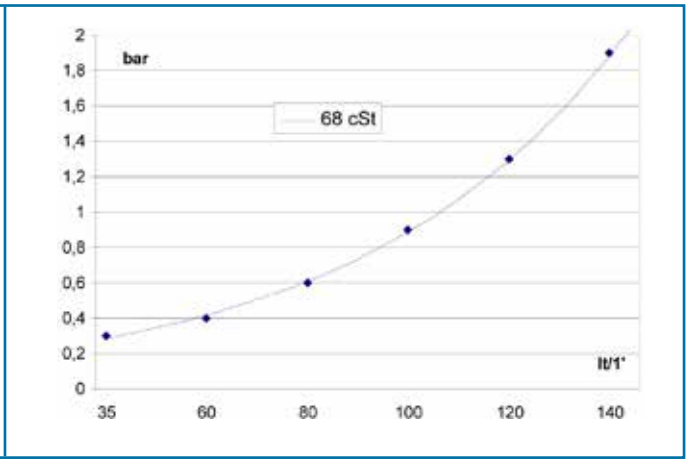
| Product Code | Type of Setting | Overall H | Fan ø | Fan Power m³/h | M.R. dm³ | Power Consumpt. |
|---|---|---|---|---|---|---|
| RU019458B000 | UNCOVERED | 65 | - | - | 9,47 | - |
| RU019458B011 | 12V Suct. | 230 | 305 | 1839 | 9,47 | 16,5 A |
| RU019458B012 | 12V Blow. | 230 | 305 | 2800 | 9,47 | 15,0 A |
| RU019458B021 | 24V Suct. | 230 | 305 | 2161 | 9,47 | 10,3 A |
| RU019458B022 | 24V Blow. | 230 | 305 | 2050 | 9,47 | 9,1 A |
| RU019458B031 * | 230V-50/60Hz Suct. | 195 | 300 | 3745 | 9,47 | 1,55 A |
| RU019458B032 * | 230V-50/60Hz Blow. | 195 | 300 | 3745 | 9,47 | 1,55 A |
| RU019458B041 | 230/400V-50/60Hz 3FN Suct. | 195 | 300 | 3350 | 9,47 | 0,48 A |
| RU019458B042 | 230/400V-50/60Hz 3FN Blow. | 195 | 300 | 3350 | 9,47 | 0,48 A |
| RU019458B051 | Pred. Hydraulic. Suct. | 245 | 300 | 3080 | 9,47 | 0,41 kW |
| RU019458B052 | Pred. Hydraulic. Blow. | 245 | 300 | 3080 | 9,47 | 0,41 kW |

* In **SINGLE PHASE** models (*31/*32), **ADJUSTABLE THERMOSTAT** 0-90° on request

## TECH. SPEC.

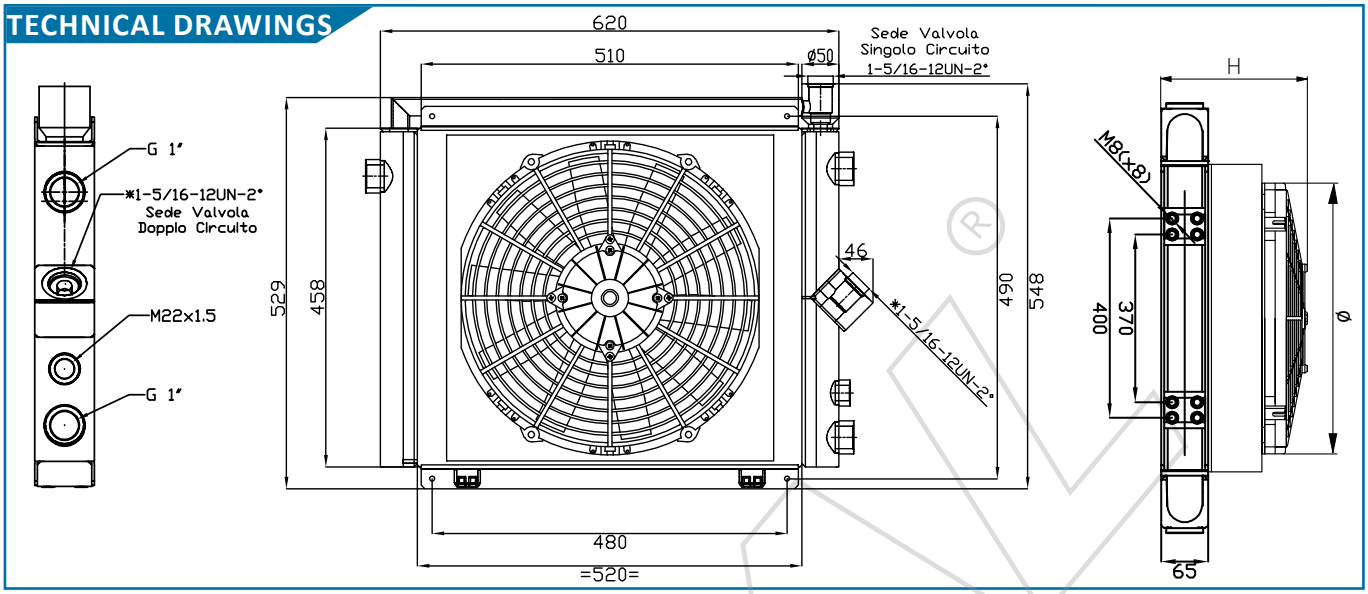
| | |
|---|---|
| *Minimum Range* | Kw 16:60 lt |
| *Maximum Range* | Kw 27:160 lt |



# BY-PASS SERIES MOD. BY-PASS GRS/D 300

## TECHNICAL DRAWINGS





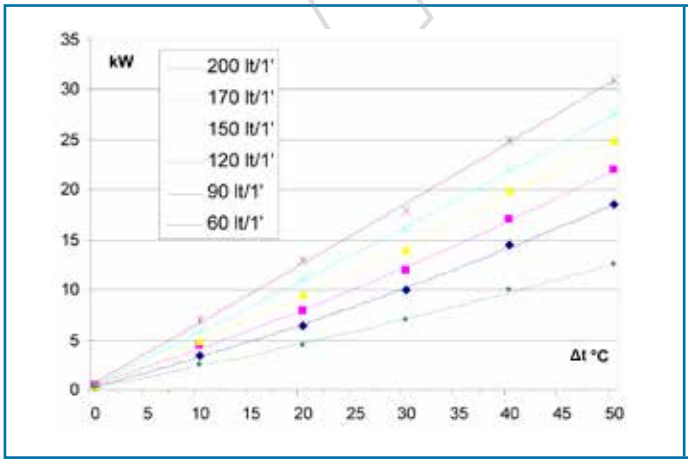

## COOLERS RANGE

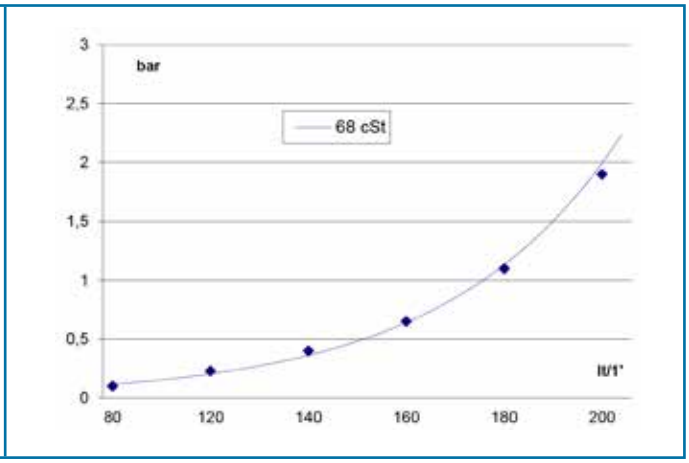
| Product Code | Type of Setting | Overall H | Fan ø | Fan Power m³/h | M.R. dm³ | Power Consumpt. |
|---|---|---|---|---|---|---|
| RU020114B000 | UNCOVERED | 65 | - | - | 15,38 | - |
| RU020114B011 | 12V Suct. | 230 | 385 | 2212 | 15,38 | 16,0 A |
| RU020114B012 | 12V Blow. | 230 | 385 | 2412 | 15,38 | 16,2 A |
| RU020114B021 | 24V Suct. | 230 | 385 | 2577 | 15,38 | 9,3 A |
| RU020114B022 | 24V Blow. | 230 | 385 | 2609 | 15,38 | 9,0 A |
| RU020114B031 * | 230V-50/60Hz Suct. | 220 | 400 | 4950 | 15,38 | 1,06 A |
| RU020114B032 * | 230V-50/60Hz Blow. | 220 | 400 | 4950 | 15,38 | 1,06 A |
| RU020114B041 | 230/400V-50/60Hz 3FN Suct. | 220 | 400 | 4615 | 15,38 | 0,39 A |
| RU020114B042 | 230/400V-50/60Hz 3FN Blow. | 220 | 400 | 4615 | 15,38 | 0,39 A |
| RU020114B051 | Pred. Hydraulic. Suct. | 245 | 400 | 7050 | 15,38 | 1,5 kW |
| RU020114B052 | Pred. Hydraulic. Blow. | 245 | 400 | 7050 | 15,38 | 1,5 kW |

* In **SINGLE PHASE** models (*31/*32), **ADJUSTABLE THERMOSTAT** 0-90° on request

## TECH. SPEC.

| | |
|---|---|
| *Minimum Range* | Kw 13:60 lt |
| *Maximum Range* | Kw 31:200 lt |



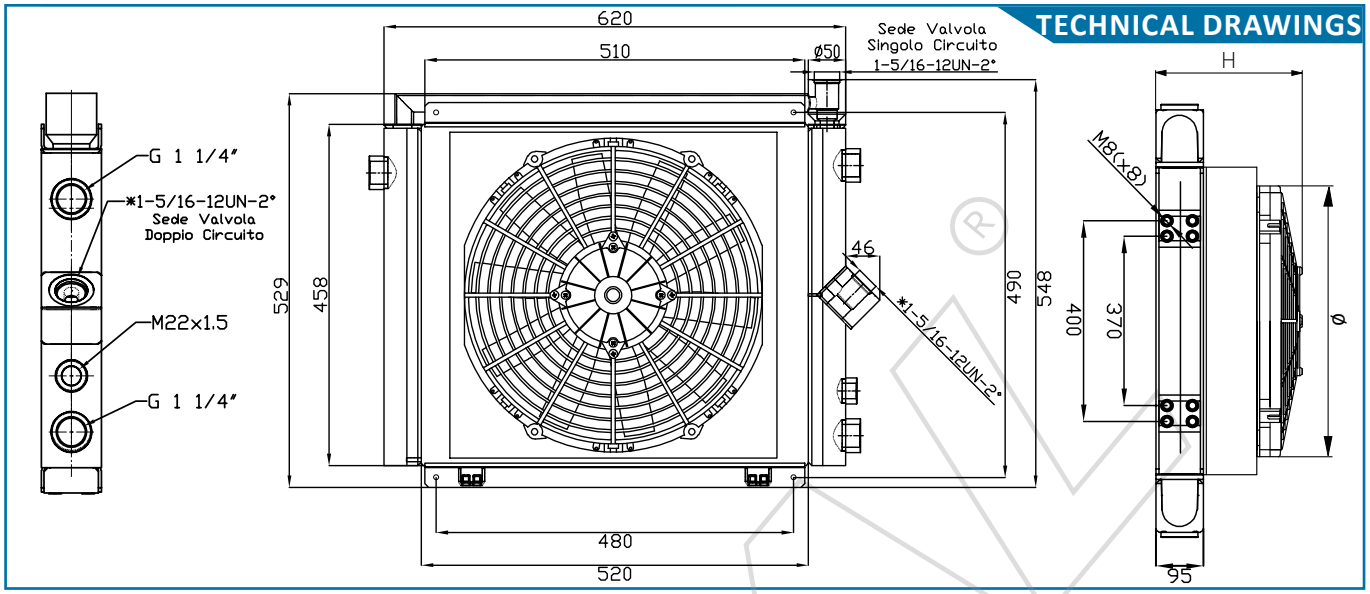



# MOD. BY-PASS GRS/D 500

BY-PASS SERIES



## TECHNICAL DRAWINGS



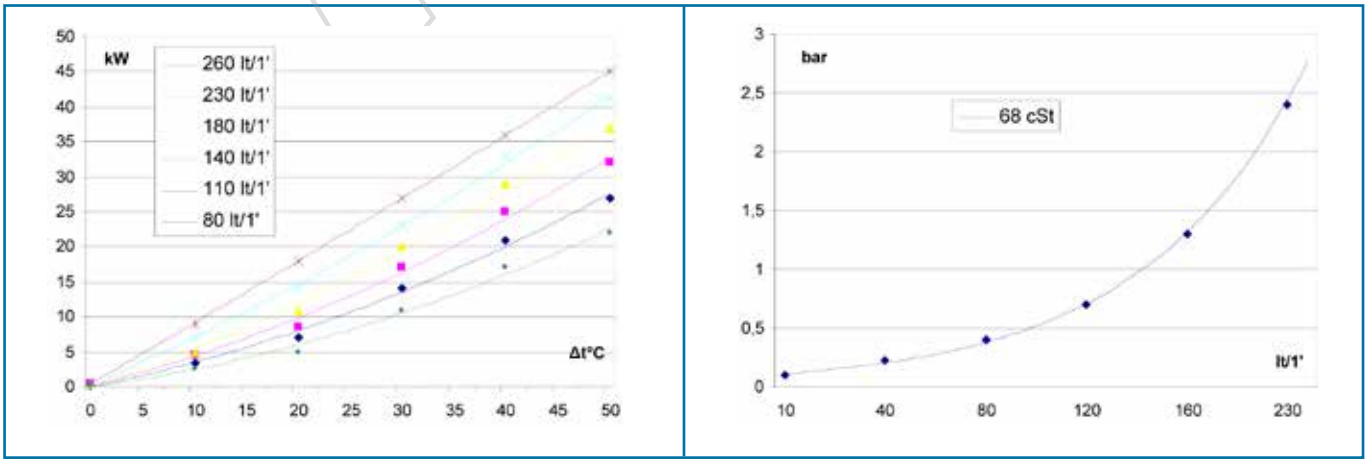

## COOLERS RANGE

| Product Code | Type of Setting | Overall H | Fan Ø | Fan Power m³/h | M.R. dm³ | Power Consumpt. |
|---|---|---|---|---|---|---|
| RU021919B000 | UNCOVERED | 95 | - | - | 22,48 | - |
| RU021919B011 | 12V Suct. | 260 | 385 | 2212 | 22,48 | 16,0 A |
| RU021919B012 | 12V Blow. | 260 | 385 | 2412 | 22,48 | 16,2 A |
| RU021919B021 | 24V Suct. | 260 | 385 | 2577 | 22,48 | 9,3 A |
| RU021919B022 | 24V Blow. | 260 | 385 | 2609 | 22,48 | 9,0 A |
| RU021919B031 * | 230V-50/60Hz Suct. | 250 | 400 | 4950 | 22,48 | 1,06 A |
| RU021919B032 * | 230V-50/60Hz Blow. | 250 | 400 | 4950 | 22,48 | 1,06 A |
| RU021919B041 | 230/400V-50/60Hz 3FN Suct. | 250 | 400 | 4615 | 22,48 | 0,39 A |
| RU021919B042 | 230/400V-50/60Hz 3FN Blow. | 250 | 400 | 4615 | 22,48 | 0,39 A |
| RU021919B051 | Pred. Hydraulic. Suct. | 270 | 400 | 7050 | 22,48 | 1,5 kW |
| RU021919B052 | Pred. Hydraulic. Blow. | 270 | 400 | 7050 | 22,48 | 1,5 kW |

* In **SINGLE PHASE** models (*31/*32), **ADJUSTABLE THERMOSTAT** 0-90° on request

## TECH. SPEC.

| | |
|---|---|
| *Minimum Range* | Kw 22:80 lt |
| *Maximum Range* | Kw 45:260 lt |



# COOLERS

RAAL®
complete cooling solutions

## VT S/D SERIES



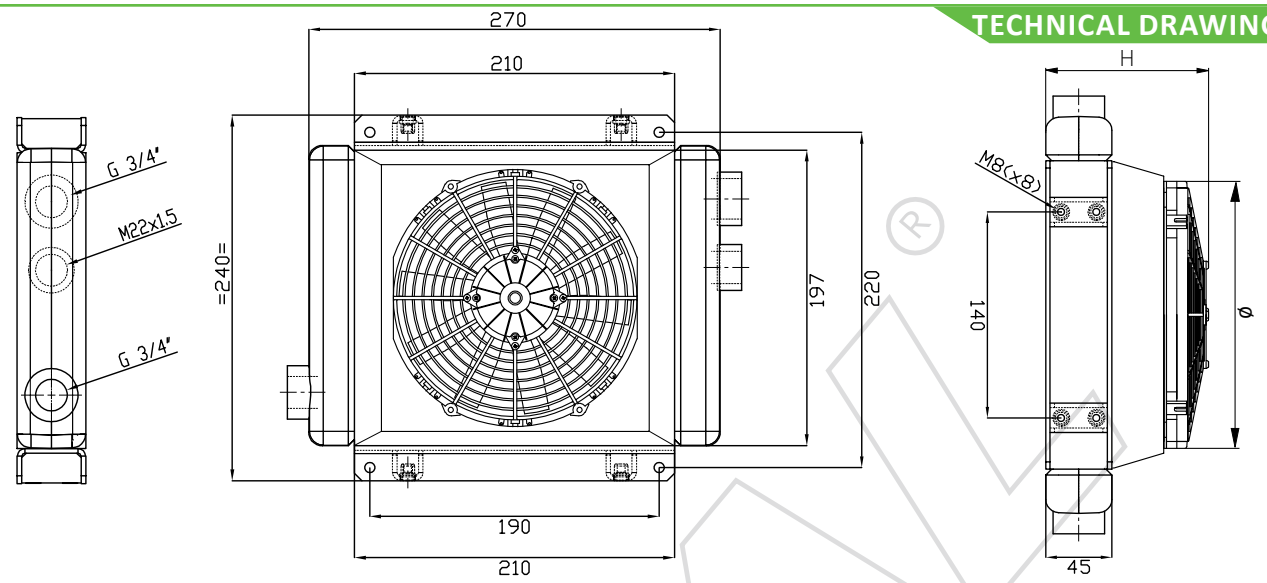

MIRROR LINE

# COOLERS

## MOD. VTS 50

## VT S/D SERIES

### TECHNICAL DRAWINGS



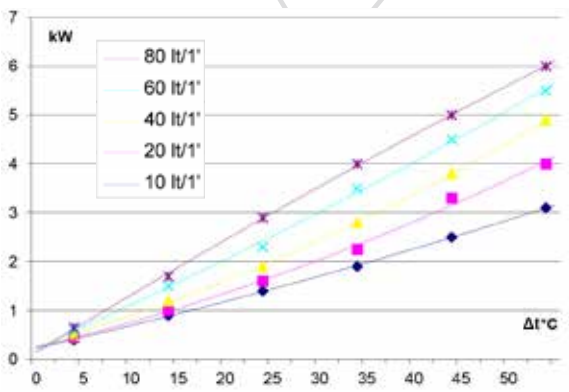


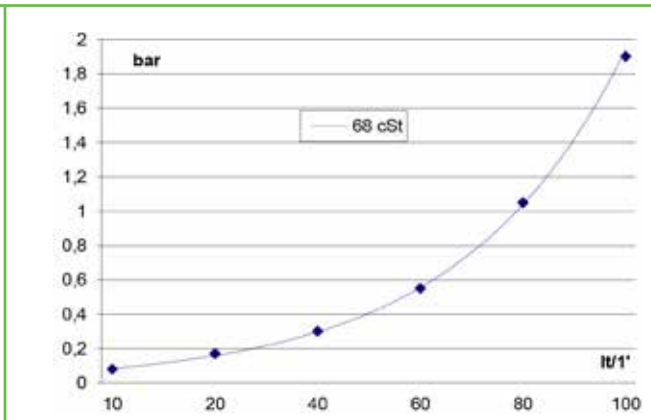

### COOLERS RANGE

| Product Code | Type of Setting | Overall H | Fan ø | Fan Power m³/h | M.R. dm³ | Power Consumpt. |
|---|---|---|---|---|---|---|
| RUV100610000 | UNCOVERED | 45 | - | - | 1,91 | - |
| RUV100610011 | 12V Suct. | 140 | 190 | 446 | 1,91 | 6,4 A |
| RUV100610012 | 12V Blow. | 140 | 190 | 497 | 1,91 | 6,4 A |
| RUV100610021 | 24V Suct. | 140 | 190 | 419 | 1,91 | 2,8 A |
| RUV100610022 | 24V Blow. | 140 | 190 | 505 | 1,91 | 3,3 A |
| RUV100610031 | 230V-50/60Hz Suct. | 135 | 200 | 1025 | 1,91 | 0,34 A |
| RUV100610032 | 230V-50/60Hz Blow. | 135 | 200 | 1025 | 1,91 | 0,13 A |
| RUV100610041 | 230/400V-50/60Hz 3FN Suct. | 135 | 200 | 1020 | 1,91 | 0,13 A |
| RUV100610042 | 230/400V-50/60Hz 3FN Blow. | 135 | 200 | 1020 | 1,91 | 0,30 A |
| RUV100610051 | Pred. Hydraulic. Suct. | 145 | 195 | 958 | 1,91 | 0,7 kW |
| RUV100610052 | Pred. Hydraulic. Blow. | 145 | 195 | 958 | 1,91 | 0,7 kW |

### TECH. SPEC.

| | |
|---|---|
| *Minimum Range* | Kw 3,1:10 lt |
| *Maximum Range* | Kw 6:80 lt |

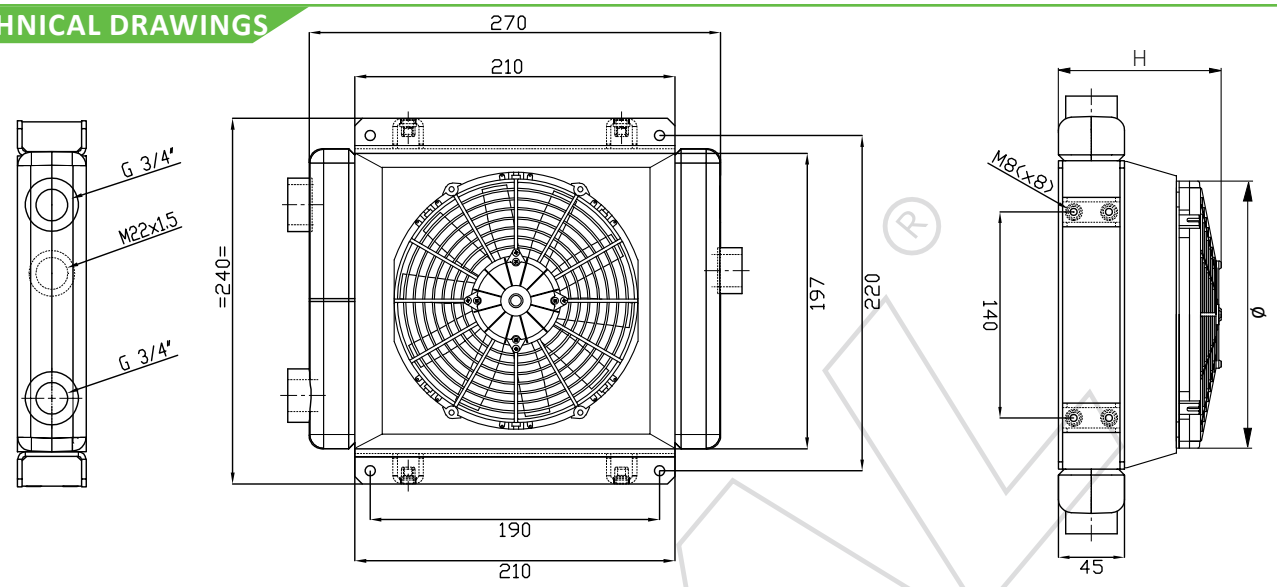


# VT S/D SERIES

## MOD. VTD 50

### TECHNICAL DRAWINGS

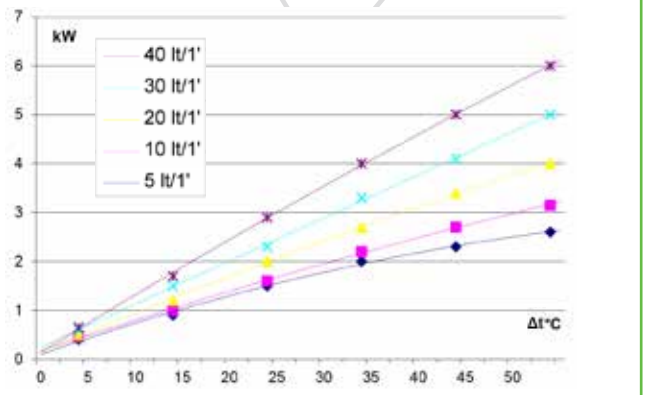


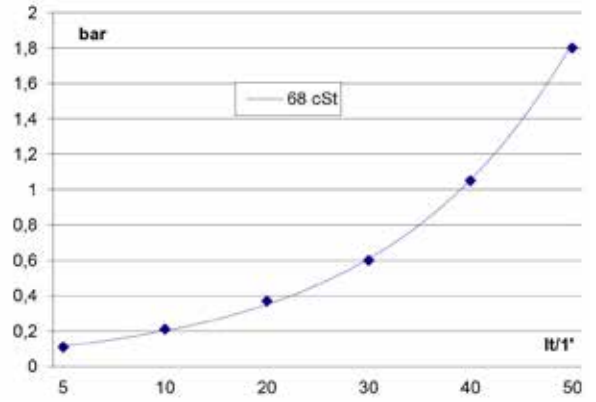

### COOLERS RANGE

| Product Code | Type of Setting | Overall H | Fan ø | Fan Power m³/h | M.R. dm³ | Power Consumpt. |
|---|---|---|---|---|---|---|
| RUV100620000 | UNCOVERED | 45 | - | - | 1,91 | - |
| RUV100620011 | 12V Suct. | 140 | 190 | 446 | 1,91 | 6,4 A |
| RUV100620012 | 12V Blow. | 140 | 190 | 497 | 1,91 | 6,4 A |
| RUV100620021 | 24V Suct. | 140 | 190 | 419 | 1,91 | 2,8 A |
| RUV100620022 | 24V Blow. | 140 | 190 | 505 | 1,91 | 3,3 A |
| RUV100620031 | 230V-50/60Hz Suct. | 135 | 200 | 1025 | 1,91 | 0,34 A |
| RUV100620032 | 230V-50/60Hz Blow. | 135 | 200 | 1025 | 1,91 | 0,13 A |
| RUV100620041 | 230/400V-50/60Hz 3FN Suct. | 135 | 200 | 1020 | 1,91 | 0,13 A |
| RUV100620042 | 230/400V-50/60Hz 3FN Blow. | 135 | 200 | 1020 | 1,91 | 0,30 A |
| RUV100620051 | Pred. Hydraulic. Suct. | 145 | 195 | 958 | 1,91 | 0,7 kW |
| RUV100620052 | Pred. Hydraulic. Blow. | 145 | 195 | 958 | 1,91 | 0,7 kW |

### TECH. SPEC.

| | |
|---|---|
| *Minimum Range* | Kw 2,6:5 lt |
| *Maximum Range* | Kw 6:40 lt |



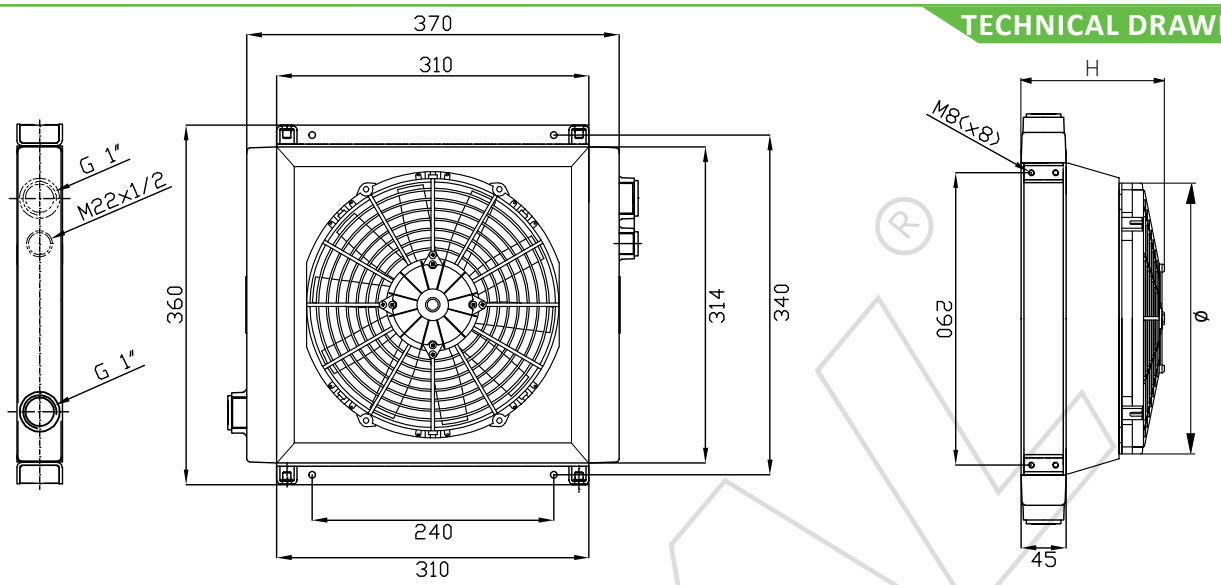

VT S/D SERIES

# COOLERS

## MOD. VTS 60

## VT S/D SERIES

### TECHNICAL DRAWINGS



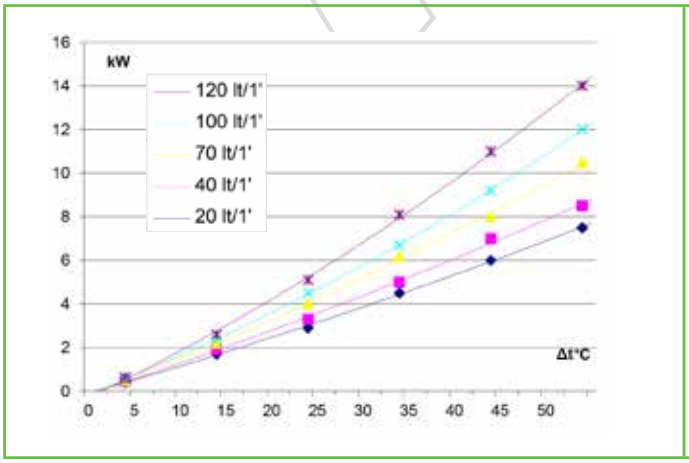


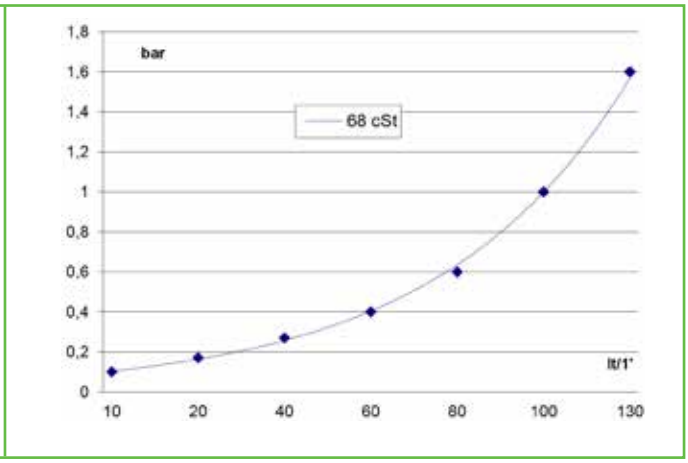

### COOLERS RANGE

| Product Code | Type of Setting | Overall H | Fan ø | Fan Power m³/h | M.R. dm³ | Power Consumpt. |
|---|---|---|---|---|---|---|
| RUV100630000 | UNCOVERED | 45 | - | - | 4,47 | - |
| RUV100630011 | 12V Suct. | 210 | 305 | 1839 | 4,47 | 16,5 A |
| RUV100630012 | 12V Blow. | 210 | 305 | 2800 | 4,47 | 15,0 A |
| RUV100630021 | 24V Suct. | 210 | 305 | 2161 | 4,47 | 10,3 A |
| RUV100630022 | 24V Blow. | 210 | 305 | 2050 | 4,47 | 9,1 A |
| RUV100630031 | 230V-50/60Hz Suct. | 175 | 300 | 3745 | 4,47 | 1,55 A |
| RUV100630032 | 230V-50/60Hz Blow. | 175 | 300 | 3745 | 4,47 | 1,55 A |
| RUV100630041 | 230/400V-50/60Hz 3FN Suct. | 175 | 300 | 3350 | 4,47 | 0,48 A |
| RUV100630042 | 230/400V-50/60Hz 3FN Blow. | 175 | 300 | 3350 | 4,47 | 0,48 A |
| RUV100630051 | Pred. Hydraulic. Suct. | 228 | 300 | 3080 | 4,47 | 0,41 kW |
| RUV100630052 | Pred. Hydraulic. Blow. | 225 | 300 | 3080 | 4,47 | 0,41 kW |

### TECH. SPEC.

| | |
|---|---|
| *Minimum Range* | Kw 7,5:20 lt |
| *Maximum Range* | Kw 14:120 lt |

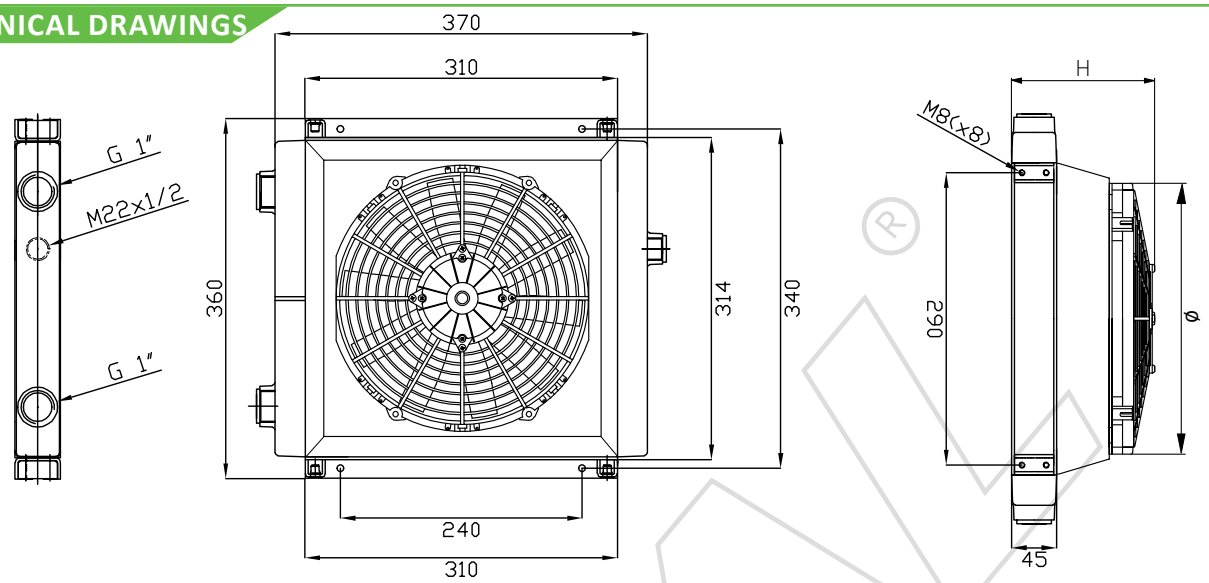


# VT S/D SERIES

## MOD. VTD 60

### TECHNICAL DRAWINGS

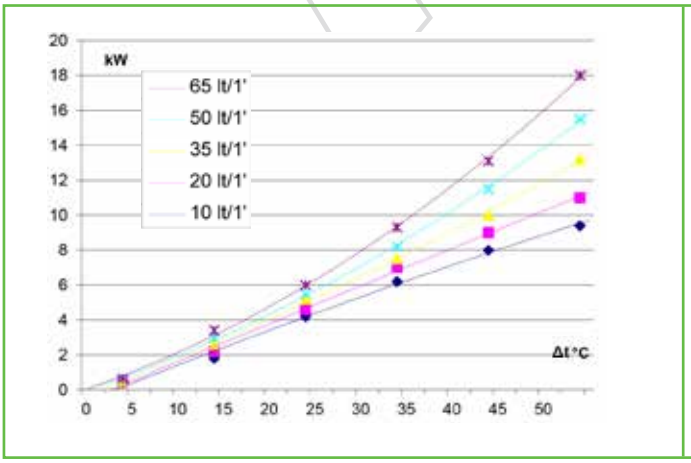


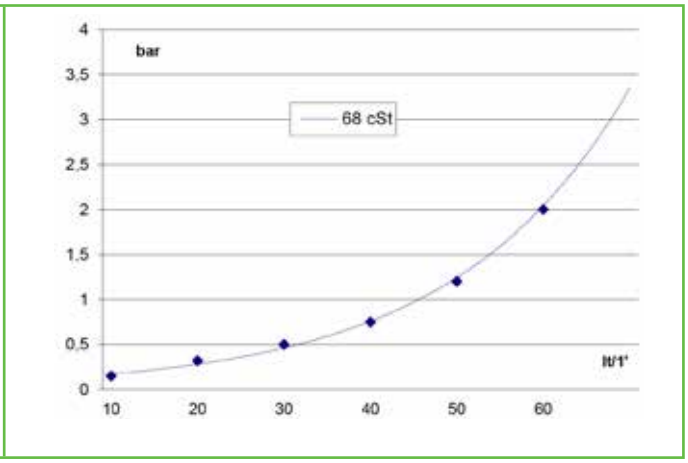

### COOLERS RANGE

| Product Code | Type of Setting | Overall H | Fan ø | Fan Power m³/h | M.R. dm³ | Power Consumpt. |
|---|---|---|---|---|---|---|
| RUV100640000 | UNCOVERED | 45 | - | - | 4,47 | - |
| RUV100640011 | 12V Suct. | 210 | 305 | 1839 | 4,47 | 16,5 A |
| RUV100640012 | 12V Blow. | 210 | 305 | 2800 | 4,47 | 15,0 A |
| RUV100640021 | 24V Suct. | 210 | 305 | 2161 | 4,47 | 10,3 A |
| RUV100640022 | 24V Blow. | 210 | 305 | 2050 | 4,47 | 9,1 A |
| RUV100640031 | 230V-50/60Hz Suct. | 175 | 300 | 3745 | 4,47 | 1,55 A |
| RUV100640032 | 230V-50/60Hz Blow. | 175 | 300 | 3745 | 4,47 | 1,55 A |
| RUV100640041 | 230/400V-50/60Hz 3FN Suct. | 175 | 300 | 3350 | 4,47 | 0,48 A |
| RUV100640042 | 230/400V-50/60Hz 3FN Blow. | 175 | 300 | 3350 | 4,47 | 0,48 A |
| RUV100640051 | Pred. Hydraulic. Suct. | 228 | 300 | 3080 | 4,47 | 0,41 kW |
| RUV100640052 | Pred. Hydraulic. Blow. | 225 | 300 | 3080 | 4,47 | 0,41 kW |

### TECH. SPEC.

| | |
|---|---|
| *Minimum Range* | Kw 9,2:10 lt |
| *Maximum Range* | Kw 18:65 lt |



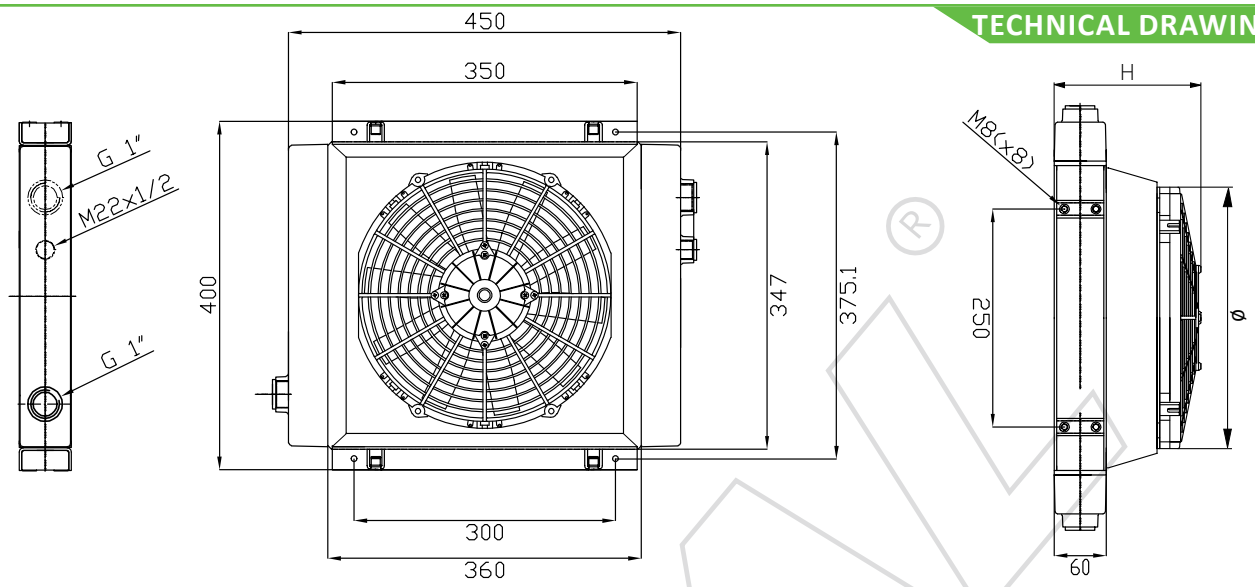



# COOLERS

## MOD. VTS 150

## VT S/D SERIES

### TECHNICAL DRAWINGS



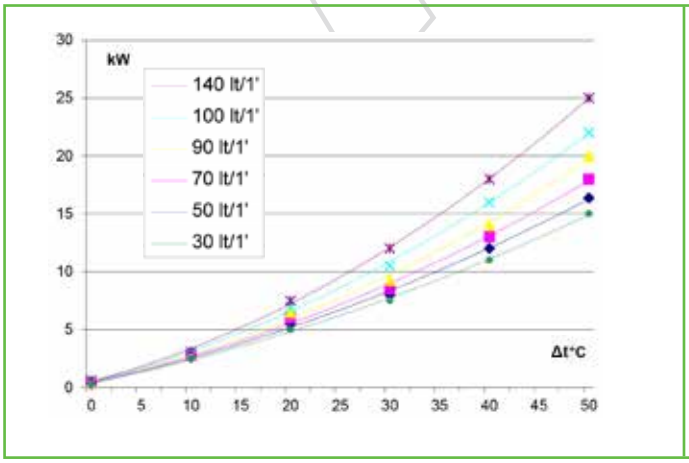


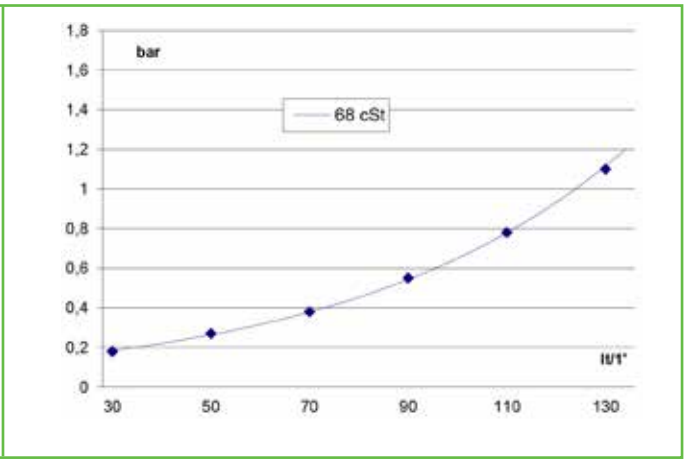

### COOLERS RANGE

| Product Code | Type of Setting | Overall H | Fan ø | Fan Power m³/h | M.R. dm³ | Power Consumpt. |
|---|---|---|---|---|---|---|
| RUV100650000 | UNCOVERED | 65 | - | - | 7,87 | - |
| RUV100650011 | 12V Suct. | 230 | 305 | 1839 | 7,87 | 16,5 A |
| RUV100650012 | 12V Blow. | 230 | 305 | 2800 | 7,87 | 15,0 A |
| RUV100650021 | 24V Suct. | 230 | 305 | 2161 | 7,87 | 10,3 A |
| RUV100650022 | 24V Blow. | 230 | 305 | 2050 | 7,87 | 9,1 A |
| RUV100650031 | 230V-50/60Hz Suct. | 195 | 300 | 3745 | 7,87 | 1,55 A |
| RUV100650032 | 230V-50/60Hz Blow. | 195 | 300 | 3745 | 7,87 | 1,55 A |
| RUV100650041 | 230/400V-50/60Hz 3FN Suct. | 195 | 300 | 3350 | 7,87 | 0,48 A |
| RUV100650042 | 230/400V-50/60Hz 3FN Blow. | 195 | 300 | 3350 | 7,87 | 0,48 A |
| RUV100650051 | Pred. Hydraulic. Suct. | 245 | 300 | 3080 | 7,87 | 0,41 kW |
| RUV100650052 | Pred. Hydraulic. Blow. | 245 | 300 | 3080 | 7,87 | 0,41 kW |

### TECH. SPEC.

| | |
|---|---|
| *Minimum Range* | Kw 15:30 lt |
| *Maximum Range* | Kw 25:140 lt |

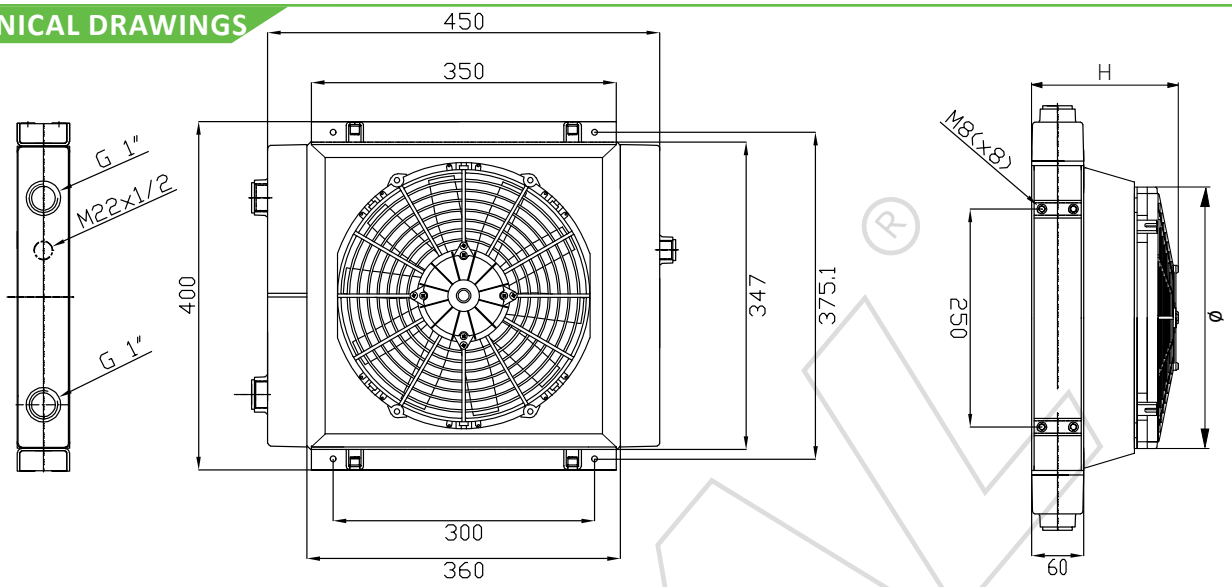


# VT S/D SERIES

## MOD. VTD 150

### TECHNICAL DRAWINGS

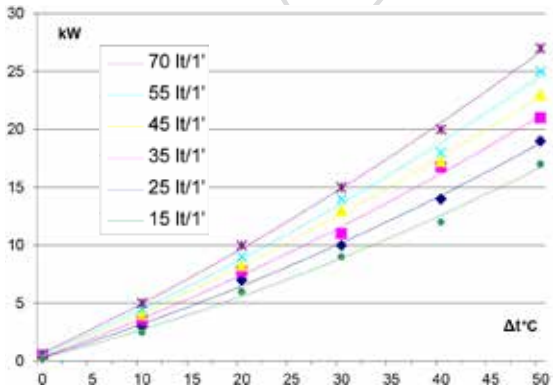


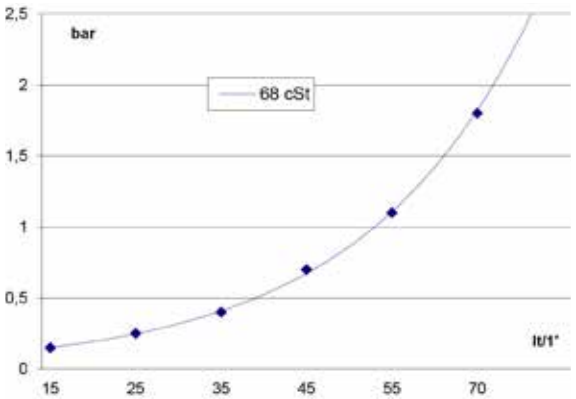

### COOLERS RANGE

| Product Code | Type of Setting | Overall H | Fan ø | Fan Power m³/h | M.R. dm³ | Power Consumpt. |
|---|---|---|---|---|---|---|
| RUV100660000 | UNCOVERED | 65 | - | - | 7,87 | - |
| RUV100660011 | 12V Suct. | 230 | 305 | 1839 | 7,87 | 16,5 A |
| RUV100660012 | 12V Blow. | 230 | 305 | 2800 | 7,87 | 15,0 A |
| RUV100660021 | 24V Suct. | 230 | 305 | 2161 | 7,87 | 10,3 A |
| RUV100660022 | 24V Blow. | 230 | 305 | 2050 | 7,87 | 9,1 A |
| RUV100660031 | 230V-50/60Hz Suct. | 195 | 300 | 3745 | 7,87 | 1,55 A |
| RUV100660032 | 230V-50/60Hz Blow. | 195 | 300 | 3745 | 7,87 | 1,55 A |
| RUV100660041 | 230/400V-50/60Hz 3FN Suct. | 195 | 300 | 3350 | 7,87 | 0,48 A |
| RUV100660042 | 230/400V-50/60Hz 3FN Blow. | 195 | 300 | 3350 | 7,87 | 0,48 A |
| RUV100660051 | Pred. Hydraulic. Suct. | 245 | 300 | 3080 | 7,87 | 0,41 kW |
| RUV100660052 | Pred. Hydraulic. Blow. | 245 | 300 | 3080 | 7,87 | 0,41 kW |

### TECH. SPEC.

| | |
|---|---|
| *Minimum Range* | Kw 17:15 lt |
| *Maximum Range* | Kw 27:70 lt |



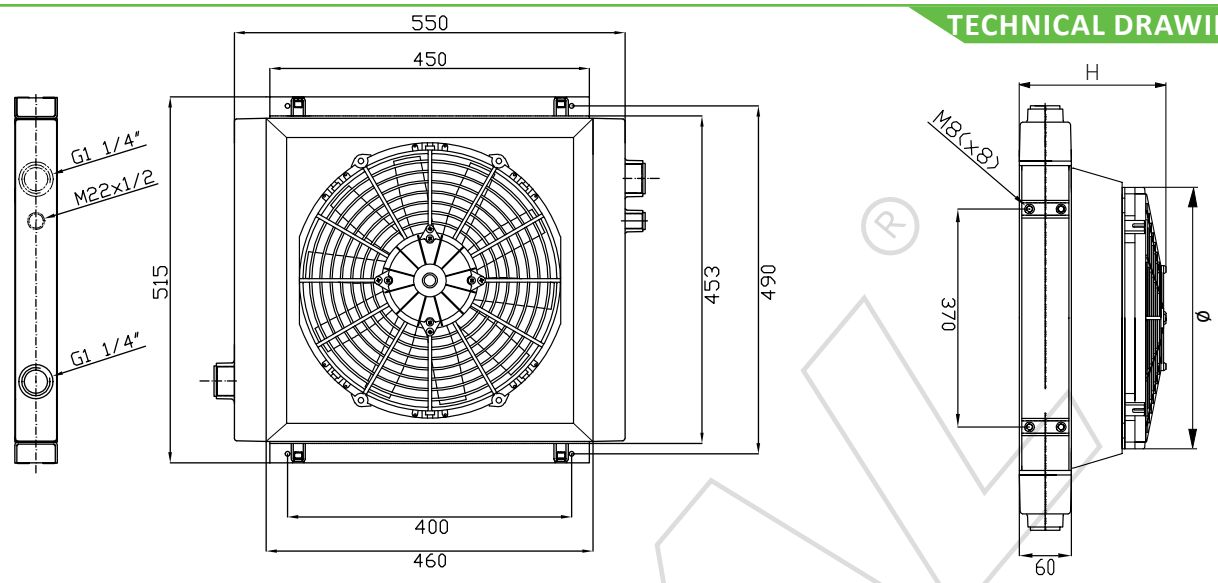

VT S/D SERIES

# COOLERS

## MOD. VTS 180

## VT S/D SERIES

### TECHNICAL DRAWINGS



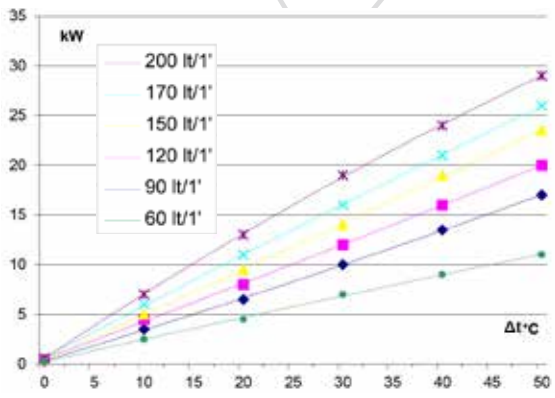


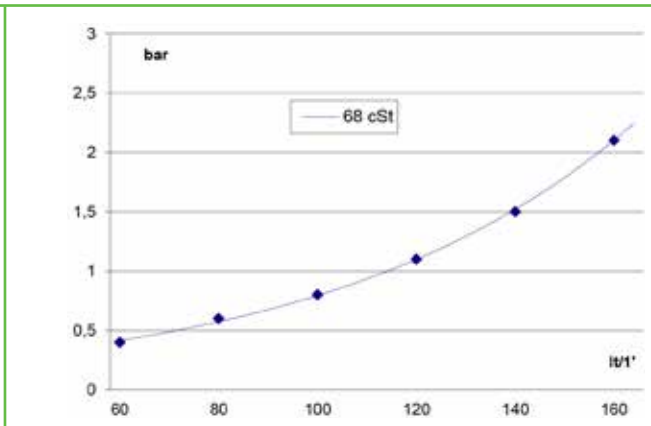

### COOLERS RANGE

| Product Code | Type of Setting | Overall H | Fan ø | Fan Power m³/h | M.R. dm³ | Power Consumpt. |
|---|---|---|---|---|---|---|
| RUV100690000 | UNCOVERED | 65 | - | - | 13,19 | - |
| RUV100690011 | 12V Suct. | 230 | 385 | 2212 | 13,19 | 16,0 A |
| RUV100690012 | 12V Blow. | 230 | 385 | 2412 | 13,19 | 16,2 A |
| RUV100690021 | 24V Suct. | 230 | 385 | 2577 | 13,19 | 9,3 A |
| RUV100690022 | 24V Blow. | 230 | 385 | 2609 | 13,19 | 9,0 A |
| RUV100690031 | 230V-50/60Hz Suct. | 195 | 400 | 4950 | 13,19 | 1,06 A |
| RUV100690032 | 230V-50/60Hz Blow. | 195 | 400 | 4950 | 13,19 | 1,06 A |
| RUV100690041 | 230/400V-50/60Hz 3FN Suct. | 195 | 400 | 4615 | 13,19 | 0,39 A |
| RUV100690042 | 230/400V-50/60Hz 3FN Blow. | 195 | 400 | 4615 | 13,19 | 0,39 A |
| RUV100690051 | Pred. Hydraulic. Suct. | 245 | 400 | 7050 | 13,19 | 1,5 kW |
| RUV100690052 | Pred. Hydraulic. Blow. | 245 | 400 | 7050 | 13,19 | 1,5 kW |

### TECH. SPEC.

| | |
|---|---|
| *Minimum Range* | Kw 11:60 lt |
| *Maximum Range* | Kw 28:200 lt |



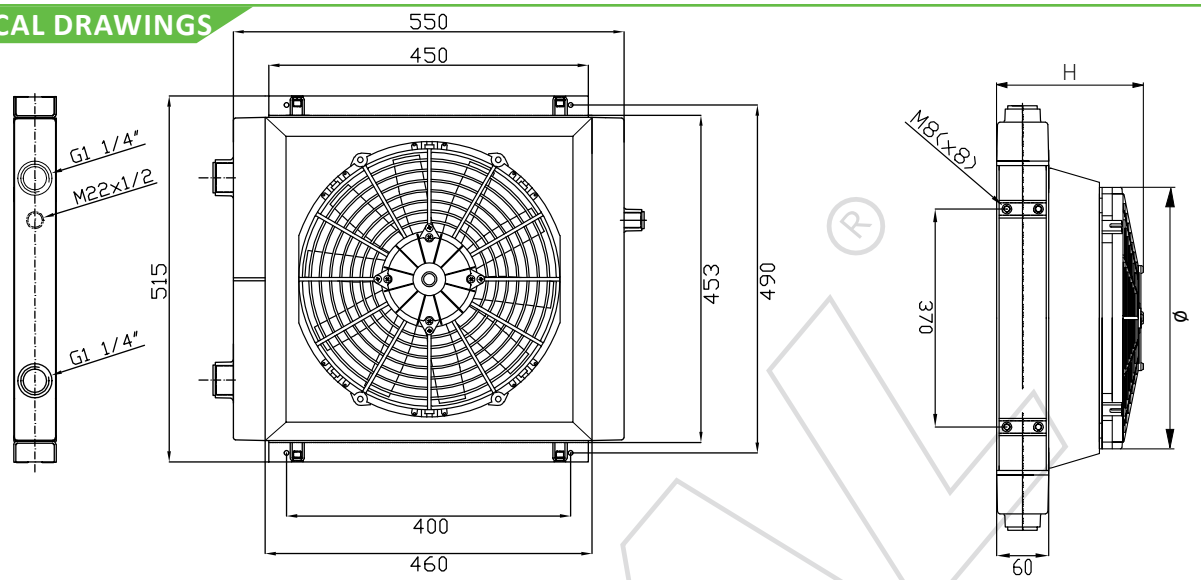
# COOLERS

RAAL® complete cooling solutions

## VT S/D SERIES

## MOD. VTD 180

### TECHNICAL DRAWINGS

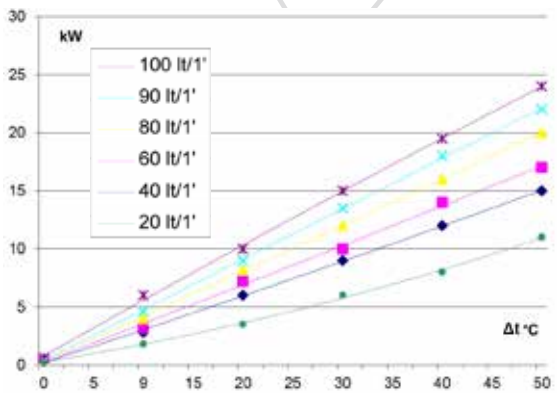


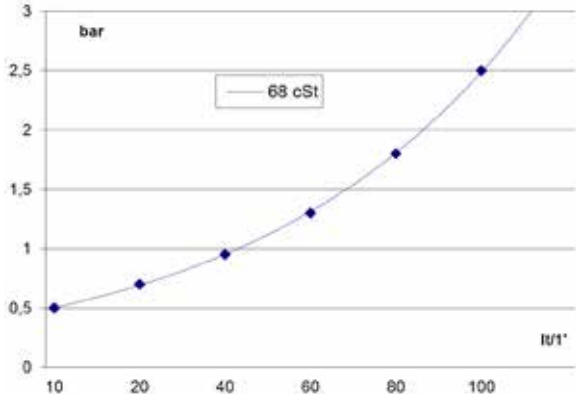

### COOLERS RANGE

| Product Code | Type of Setting | Overall H | Fan ø | Fan Power m³/h | M.R. dm³ | Power Consumpt. |
|---|---|---|---|---|---|---|
| RUV100700000 | UNCOVERED | 65 | - | - | 13,19 | - |
| RUV100700011 | 12V Suct. | 230 | 385 | 2212 | 13,19 | 16,0 A |
| RUV100700012 | 12V Blow. | 230 | 385 | 2412 | 13,19 | 16,2 A |
| RUV100700021 | 24V Suct. | 230 | 385 | 2577 | 13,19 | 9,3 A |
| RUV100700022 | 24V Blow. | 230 | 385 | 2609 | 13,19 | 9,0 A |
| RUV100700031 | 230V-50/60Hz Suct. | 195 | 400 | 4950 | 13,19 | 1,06 A |
| RUV100700032 | 230V-50/60Hz Blow. | 195 | 400 | 4950 | 13,19 | 1,06 A |
| RUV100700041 | 230/400V-50/60Hz 3FN Suct. | 195 | 400 | 4615 | 13,19 | 0,39 A |
| RUV100700042 | 230/400V-50/60Hz 3FN Blow. | 195 | 400 | 4615 | 13,19 | 0,39 A |
| RUV100700051 | Pred. Hydraulic. Suct. | 245 | 400 | 7050 | 13,19 | 1,5 kW |
| RUV100700052 | Pred. Hydraulic. Blow. | 245 | 400 | 7050 | 13,19 | 1,5 kW |

### TECH. SPEC.

| | |
|---|---|
| *Minimum Range* | Kw 11:20 lt |
| *Maximum Range* | Kw 24:100 lt |



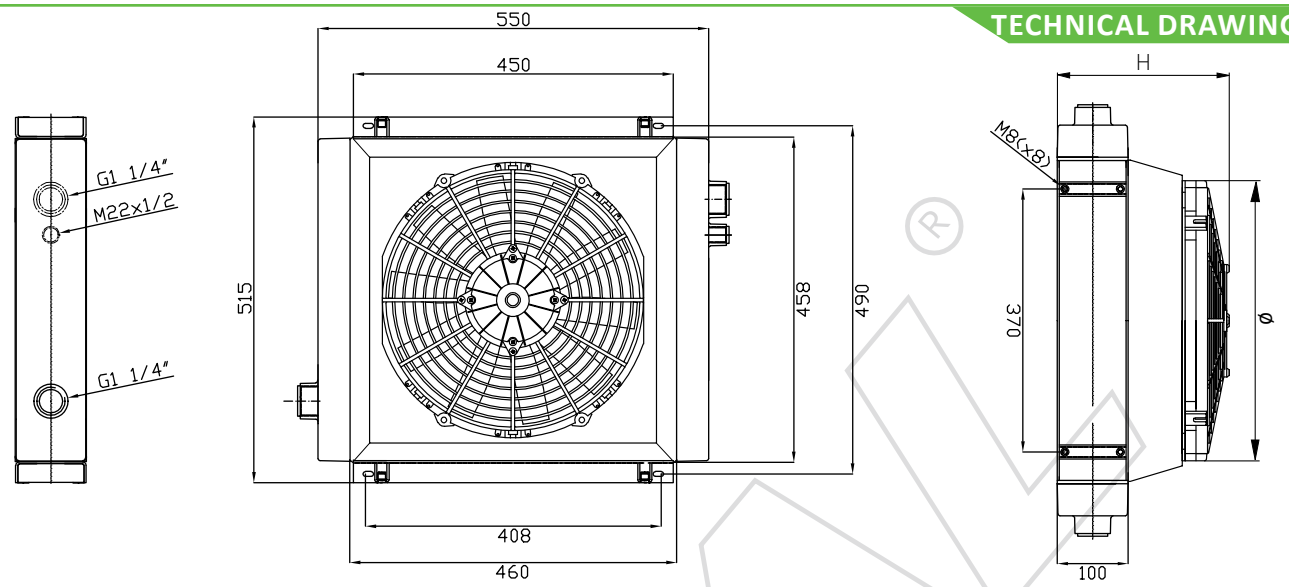

VT S/D SERIES

# COOLERS

## MOD. VTS 210

## VT S/D SERIES

### TECHNICAL DRAWINGS



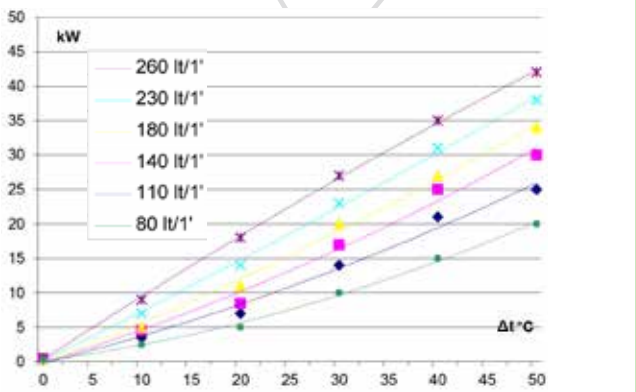


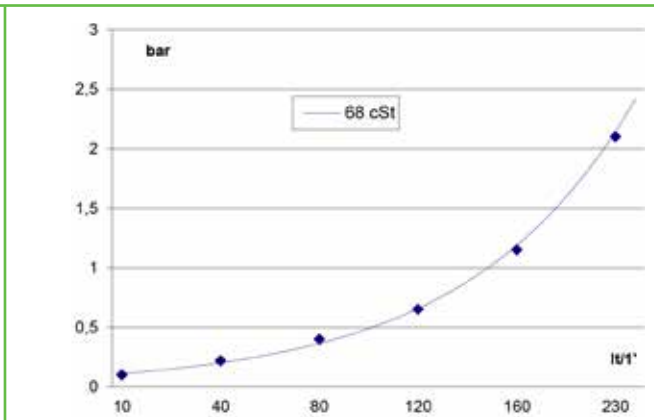

### COOLERS RANGE

| Product Code | Type of Setting | Overall H | Fan ø | Fan Power m³/h | M.R. dm³ | Power Consumpt. |
|---|---|---|---|---|---|---|
| RUV100710000 | UNCOVERED | 100 | - | - | 19,67 | - |
| RUV100710011 | 12V Suct. | 265 | 385 | 2212 | 19,67 | 16,0 A |
| RUV100710012 | 12V Blow. | 265 | 385 | 2412 | 19,67 | 16,2 A |
| RUV100710021 | 24V Suct. | 265 | 385 | 2577 | 19,67 | 9,3 A |
| RUV100710022 | 24V Blow. | 265 | 385 | 2609 | 19,67 | 9,0 A |
| RUV100710031 | 230V-50/60Hz Suct. | 255 | 400 | 4950 | 19,67 | 1,06 A |
| RUV100710032 | 230V-50/60Hz Blow. | 255 | 400 | 4950 | 19,67 | 1,06 A |
| RUV100710041 | 230/400V-50/60Hz 3FN Suct. | 255 | 400 | 4615 | 19,67 | 0,39 A |
| RUV100710042 | 230/400V-50/60Hz 3FN Blow. | 255 | 400 | 4615 | 19,67 | 0,39 A |
| RUV100710051 | Pred. Hydraulic. Suct. | 275 | 400 | 7050 | 19,67 | 1,5 kW |
| RUV100710052 | Pred. Hydraulic. Blow. | 275 | 400 | 7050 | 19,67 | 1,5 kW |

### TECH. SPEC.

| | |
|---|---|
| *Minimum Range* | Kw 20:80 lt |
| *Maximum Range* | Kw 42:260 lt |



# COOLERS

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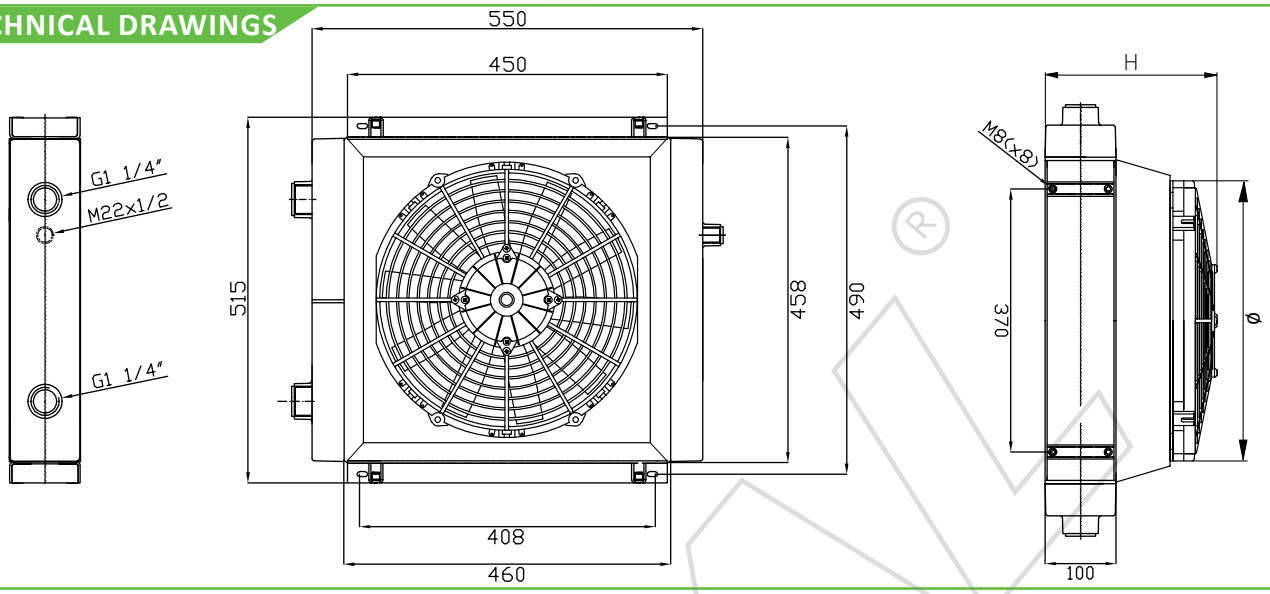
## VT S/D SERIES

## MOD. VTD 210

### TECHNICAL DRAWINGS

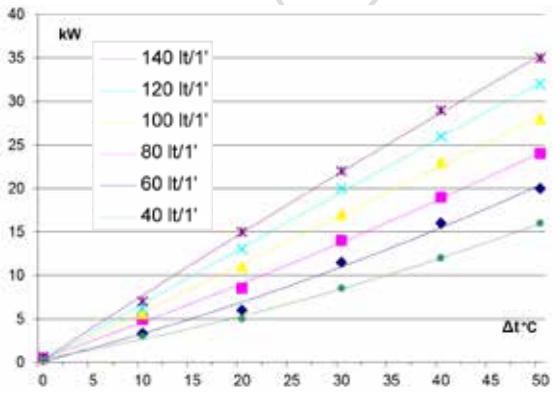


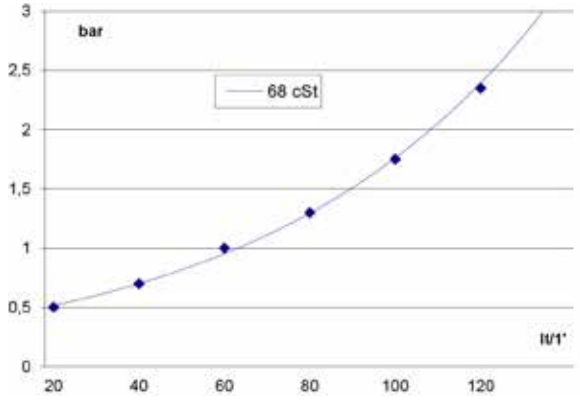

### COOLERS RANGE

| Product Code | Type of Setting | Overall H | Fan ø | Fan Power m³/h | M.R. dm³ | Power Consumpt. |
|---|---|---|---|---|---|---|
| RUV100720000 | UNCOVERED | 100 | - | - | 19,67 | - |
| RUV100720011 | 12V Suct. | 265 | 385 | 2212 | 19,67 | 16,0 A |
| RUV100720012 | 12V Blow. | 265 | 385 | 2412 | 19,67 | 16,2 A |
| RUV100720021 | 24V Suct. | 265 | 385 | 2577 | 19,67 | 9,3 A |
| RUV100720022 | 24V Blow. | 265 | 385 | 2609 | 19,67 | 9,0 A |
| RUV100720031 | 230V-50/60Hz Suct. | 255 | 400 | 4950 | 19,67 | 1,06 A |
| RUV100720032 | 230V-50/60Hz Blow. | 255 | 400 | 4950 | 19,67 | 1,06 A |
| RUV100720041 | 230/400V-50/60Hz 3FN Suct. | 255 | 400 | 4615 | 19,67 | 0,39 A |
| RUV100720042 | 230/400V-50/60Hz 3FN Blow. | 255 | 400 | 4615 | 19,67 | 0,39 A |
| RUV100720051 | Pred. Hydraulic. Suct. | 275 | 400 | 7050 | 19,67 | 1,5 kW |
| RUV100720052 | Pred. Hydraulic. Blow. | 275 | 400 | 7050 | 19,67 | 1,5 kW |

### TECH. SPEC.

| | |
|---|---|
| *Minimum Range* | Kw 16:40 lt |
| *Maximum Range* | Kw 35:140 lt |




VT S/D SERIES

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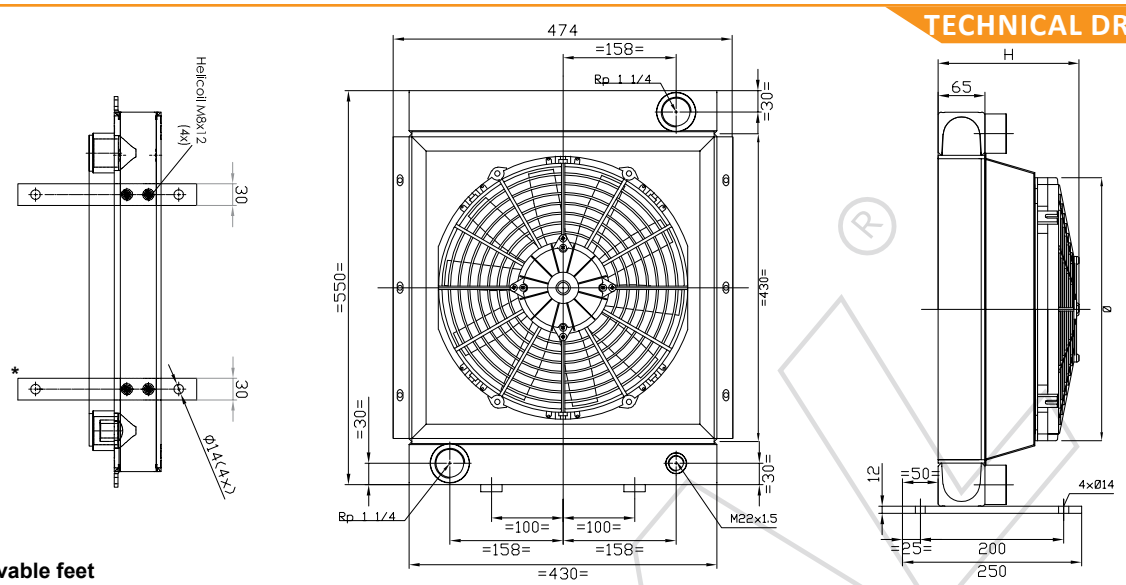
# GRV SERIES

# MOD. GRV 350S

GRV SERIES

## TECHNICAL DRAWINGS



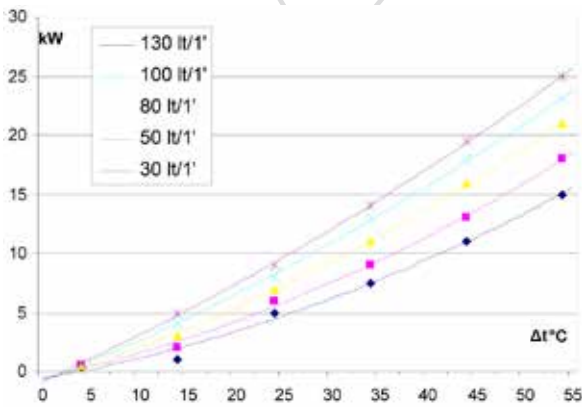

*Removable feet

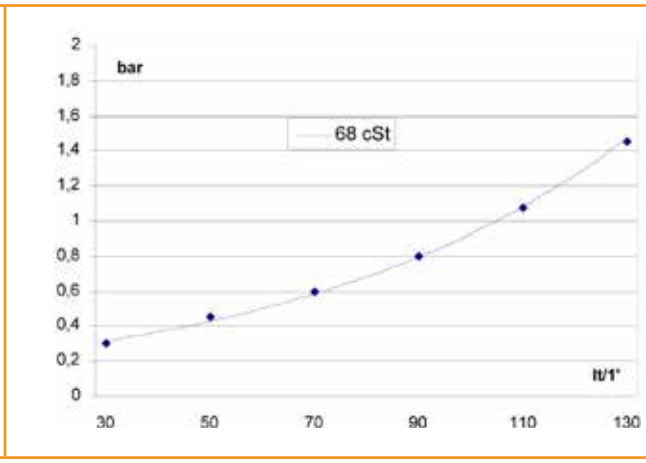
## COOLERS RANGE

| Product Code | Type of Setting | Overall H | Fan ø | Fan Power m³/h | M.R. dm³ | Power Consumpt. |
|---|---|---|---|---|---|---|
| RU0105680000 | UNCOVERED | 65 | - | - | 12,02 | - |
| RU0105680011 | 12V Suct. | 230 | 305 | 1839 | 12,02 | 16,5 A |
| RU0105680012 | 12V Blow. | 230 | 305 | 2800 | 12,02 | 15,0 A |
| RU0105680021 | 24V Suct. | 230 | 305 | 2161 | 12,02 | 10,3 A |
| RU0105680022 | 24V Blow. | 230 | 305 | 2050 | 12,02 | 9,1 A |
| RU0105680031 | 230V-50/60Hz Suct. | 195 | 300 | 3745 | 12,02 | 1,55 A |
| RU0105680032 | 230V-50/60Hz Blow. | 195 | 300 | 3745 | 12,02 | 1,55 A |
| RU0105680041 | 230/400V-50/60Hz 3FN Suct. | 195 | 300 | 3350 | 12,02 | 0,48 A |
| RU0105680042 | 230/400V-50/60Hz 3FN Blow. | 195 | 300 | 3350 | 12,02 | 0,48 A |
| RU0105680051 | Pred. Hydraulic. Suct. | 245 | 300 | 3080 | 12,02 | 0,41 kW |
| RU0105680052 | Pred. Hydraulic. Blow. | 245 | 300 | 3080 | 12,02 | 0,41 kW |

## TECH. SPEC.

| | |
|---|---|
| *Minimum Range* | Kw 15:30 lt |
| *Maximum Range* | Kw 25:130 lt |

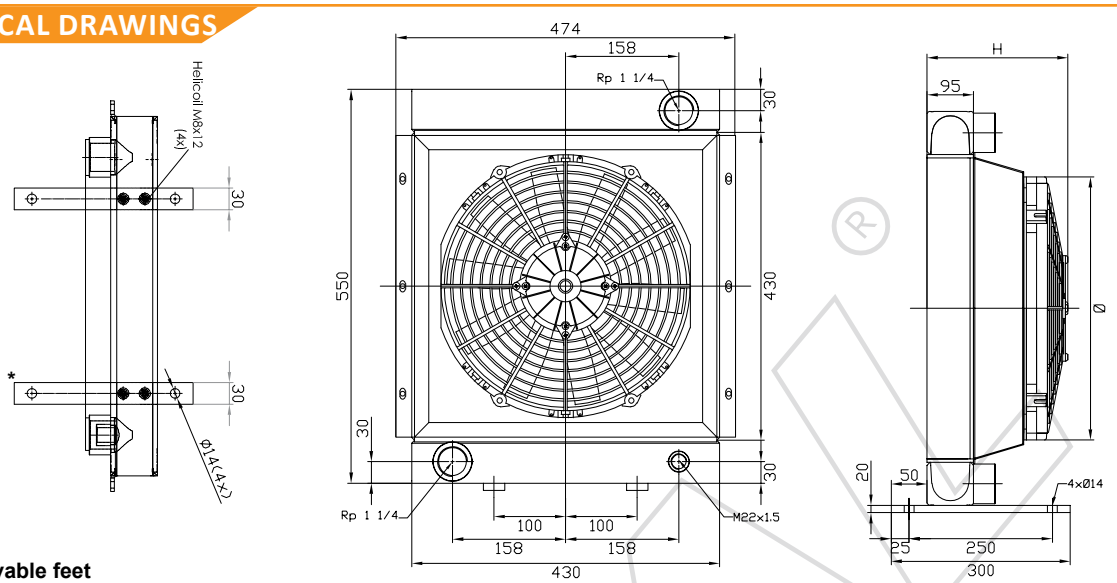


# GRV SERIES

## MOD.GRV 600S

### TECHNICAL DRAWINGS



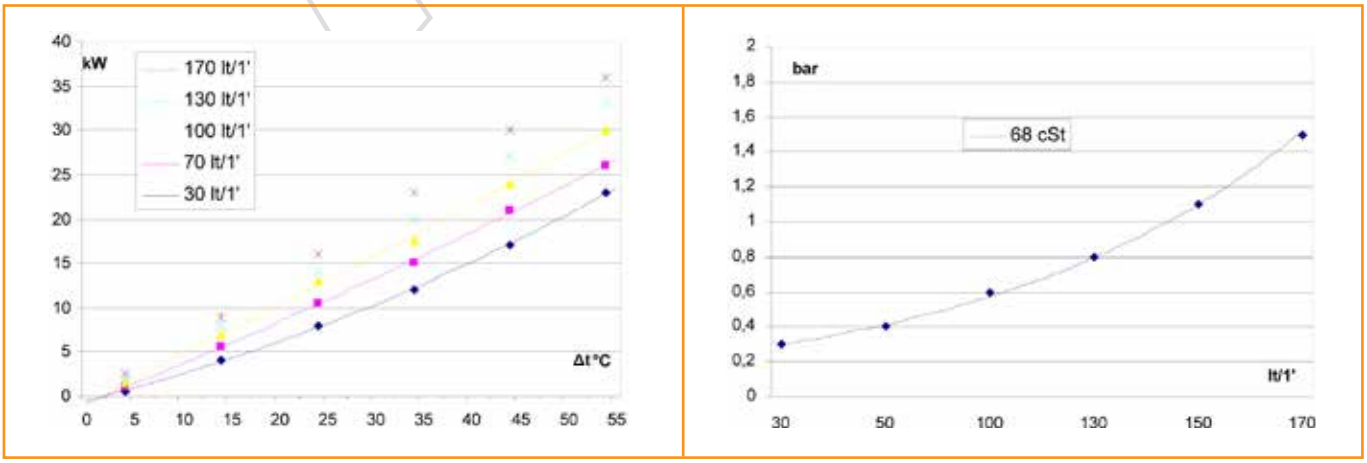

*Removable feet

### COOLERS RANGE

| Product Code | Type of Setting | Overall H | Fan ø | Fan Power m³/h | M.R. dm³ | Power Consumpt. |
|---|---|---|---|---|---|---|
| RU0105690000 | UNCOVERED | 95 | - | - | 17,57 | - |
| RU0105690011 | 12V Suct. | 260 | 305 | 1839 | 17,57 | 16,5 A |
| RU0105690012 | 12V Blow. | 260 | 305 | 2800 | 17,57 | 15,0 A |
| RU0105690021 | 24V Suct. | 260 | 305 | 2161 | 17,57 | 10,3 A |
| RU0105690022 | 24V Blow. | 260 | 305 | 2050 | 17,57 | 9,1 A |
| RU0105690031 | 230V-50/60Hz Suct. | 225 | 300 | 3745 | 17,57 | 1,55 A |
| RU0105690032 | 230V-50/60Hz Blow. | 225 | 300 | 3745 | 17,57 | 1,55 A |
| RU0105690041 | 230/400V-50/60Hz 3FN Suct. | 225 | 300 | 3350 | 17,57 | 0,48 A |
| RU0105690042 | 230/400V-50/60Hz 3FN Blow. | 225 | 300 | 3350 | 17,57 | 0,48 A |
| RU0105690051 | Pred. Hydraulic. Suct. | 275 | 300 | 3080 | 17,57 | 0,41 kW |
| RU0105690052 | Pred. Hydraulic. Blow. | 275 | 300 | 3080 | 17,57 | 0,41 kW |

### TECH. SPEC.

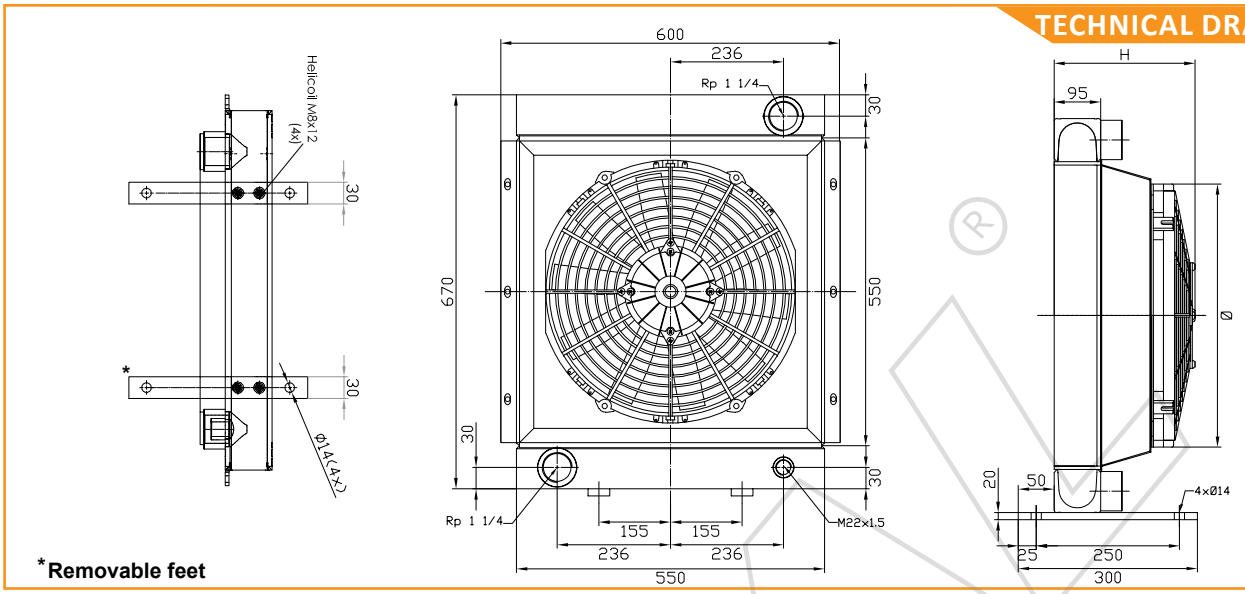
| | |
|---|---|
| *Minimum Range* | Kw 24:30 lt |
| *Maximum Range* | Kw 36:170 lt |



# MOD. GRV 850S

GRV SERIES

## TECHNICAL DRAWINGS



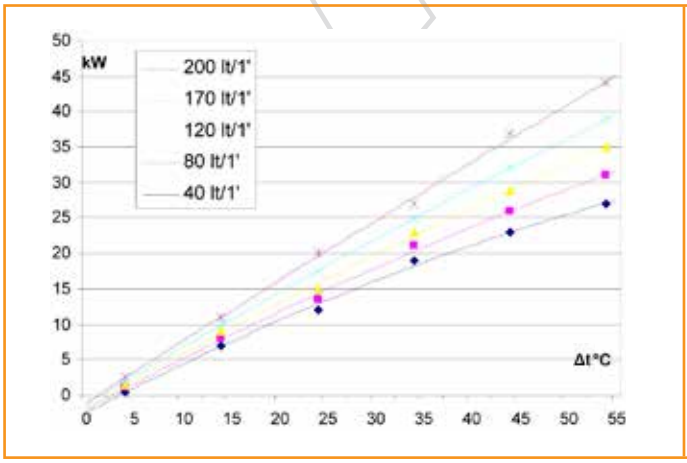

*Removable feet

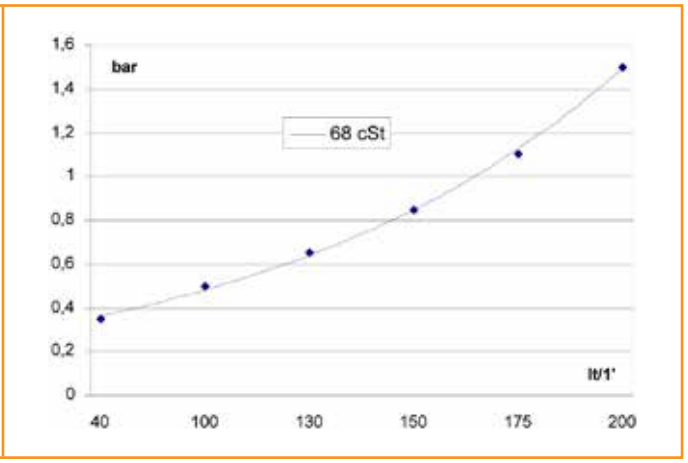
## COOLERS RANGE

| Product Code | Type of Setting | Overall H | Fan ø | Fan Power m³/h | M.R. dm³ | Power Consum. |
|---|---|---|---|---|---|---|
| RU0105700000 | UNCOVERED | 95 | - | - | 28,74 | - |
| RU0105700211 | 12V Suct. | 290 | 2 x 305 | 3678 | 28,74 | 33,0 A |
| RU0105700212 | 12V Blow. | 290 | 2 x 305 | 5600 | 28,74 | 30,0 A |
| RU0105700221 | 24V Suct. | 290 | 2 x 305 | 4322 | 28,74 | 20,6 A |
| RU0105700222 | 24V Blow. | 290 | 2 x 305 | 4100 | 28,74 | 18,2 A |
| RU0105700031/32 | 230V-50/60Hz Suct./Blow. | 305 | 500 | 9850 | 28,74 | 3,88 A |
| RU0105700231/32 | 230V-50/60Hz Suct./Blow. | 255 | 2 x 300 | 7490 | 28,74 | 3,1 A |
| RU0105700041/42 | 230/400V-50/60Hz 3FN Suct./Blo. | 305 | 500 | 10400 | 28,74 | 1,60 A |
| RU0105700241/42 | 230/400V-50/60Hz 3FN Suct./Blo. | 255 | 2 x 300 | 6700 | 28,74 | 0,96 A |
| RU0105700051 | Pred. Hydraulic. Suct. | 300 | 500 | 13300 | 28,74 | 4,1 kW |
| RU0105700052 | Pred. Hydraulic. Blow. | 300 | 500 | 13300 | 28,74 | 4,1 kW |

## TECH. SPEC.

| | |
|---|---|
| *Minimum Range* | Kw 26:40 lt |
| *Maximum Range* | Kw 44:200 lt |



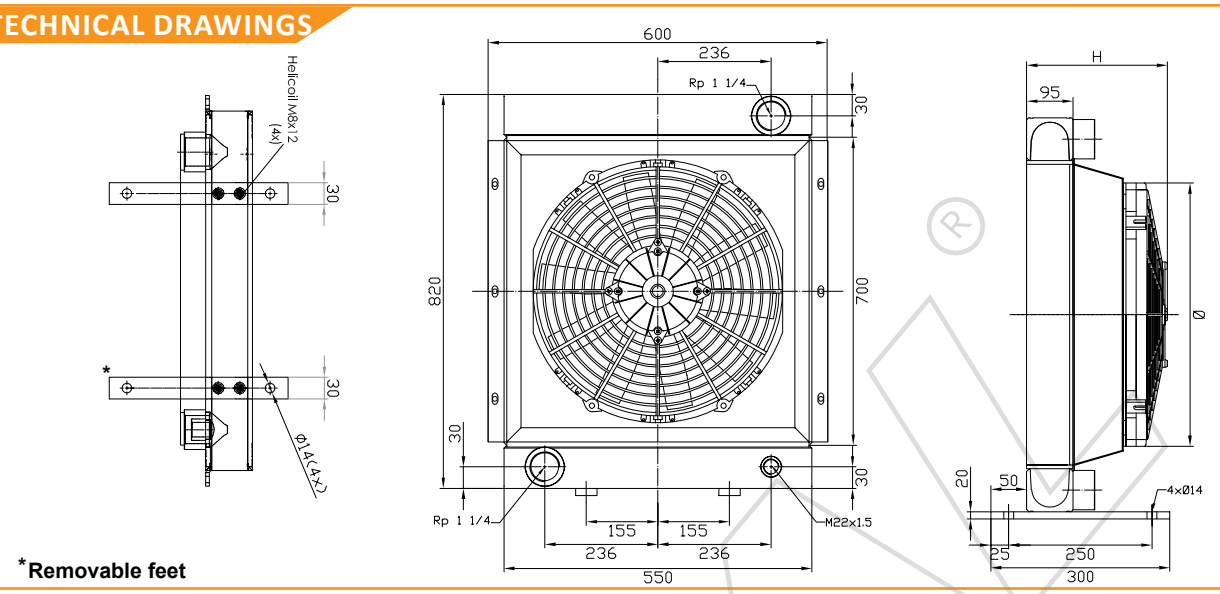




GRV SERIES

# GRV SERIES

## MOD. GRV 1100S

### TECHNICAL DRAWINGS



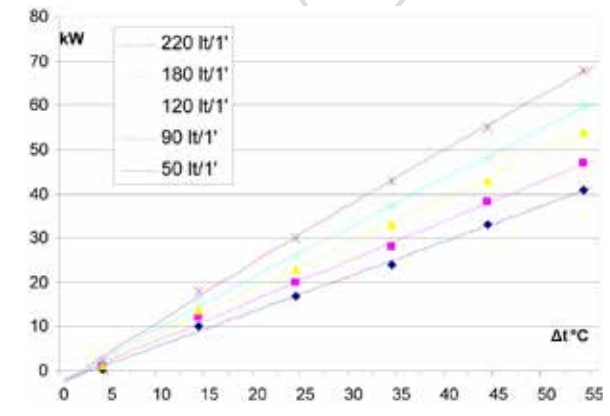

*Removable feet

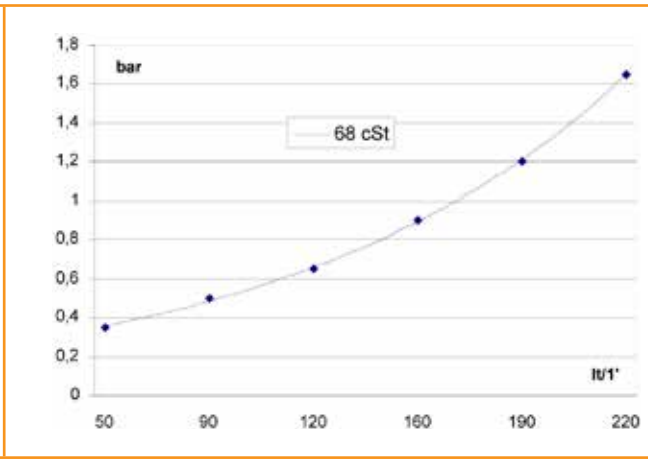
### COOLERS RANGE

| Product Code | Type of Setting | Overall H | Fan ø | Fan Power m³/h | M.R. dm³ | Power Consum. |
|---|---|---|---|---|---|---|
| RU0105710000 | UNCOVERED | 95 | - | - | 36,58 | - |
| RU0105710211 | 12V Suct. | 305 | 2 x 305 | 3678 | 36,58 | 33,0 A |
| RU0105710212 | 12V Blow. | 305 | 2 x 305 | 5600 | 36,58 | 30,0 A |
| RU0105710221 | 24V Suct. | 305 | 2 x 305 | 4322 | 36,58 | 20,6 A |
| RU0105710222 | 24V Blow. | 305 | 2 x 305 | 4100 | 36,58 | 18,2 A |
| RU0105710031/32 | 230V-50/60Hz Suct./Blow. | 305 | 500 | 9850 | 36,58 | 3,88 A |
| RU0105710231/32 | 230V-50/60Hz Suct./Blow. | 255 | 2 x 300 | 7490 | 36,58 | 3,1 A |
| RU0105710041/42 | 230/400V-50/60Hz 3FN Suct./Blo. | 305 | 500 | 10400 | 36,58 | 1,60 A |
| RU0105710241/42 | 230/400V-50/60Hz 3FN Suct./Blo. | 255 | 2 x 300 | 6700 | 36,58 | 0,96 A |
| RU0105710051 | Pred. Hydraulic. Suct. | 305 | 500 | 13300 | 36,58 | 4,1 kW |
| RU0105710052 | Pred. Hydraulic. Blow. | 305 | 500 | 13300 | 36,58 | 4,1 kW |

### TECH. SPEC.

| | |
|---|---|
| *Minimum Range* | Kw 41:50 lt |
| *Maximum Range* | Kw 65:220 lt |

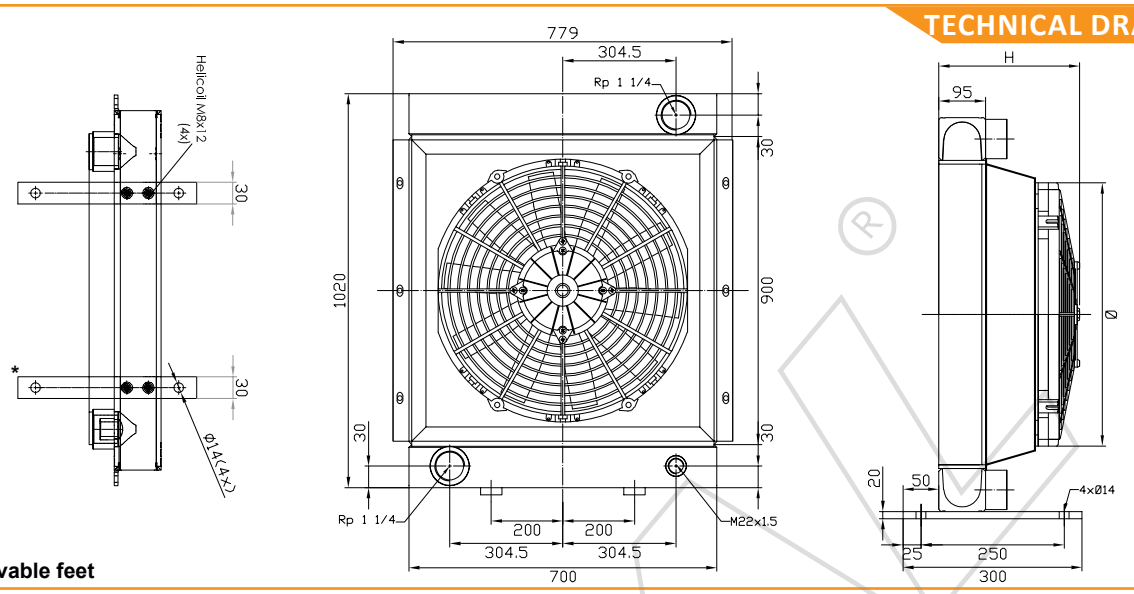


# MOD. GRV 1500S

GRV SERIES

## TECHNICAL DRAWINGS




*Removable feet

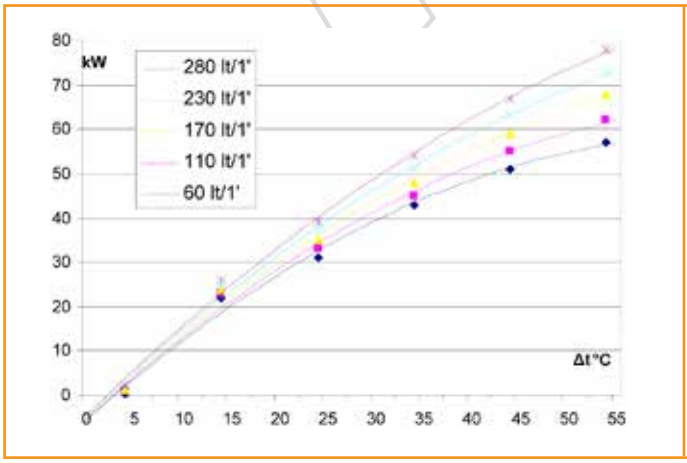
## COOLERS RANGE

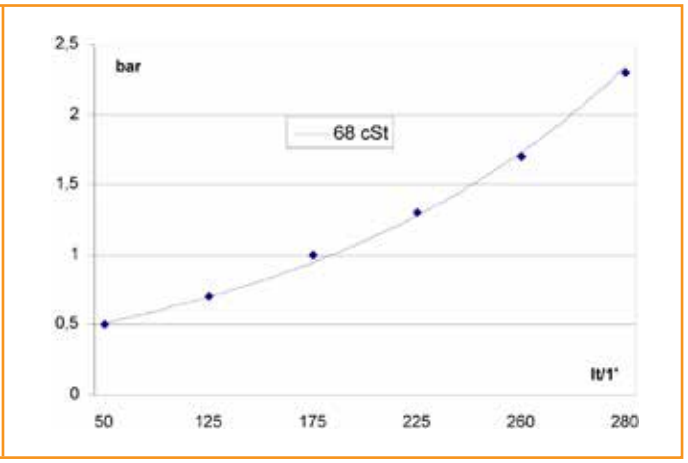
| Product Code | Type of Setting | Overall H | Fan ø | Fan Power m³/h | M.R. dm³ | Power Consum. |
|---|---|---|---|---|---|---|
| RU0105730000 | UNCOVERED | 95 | - | - | 59,85 | - |
| RU0105730411 | 12V Suct. | 305 | 4 x 305 | 7356 | 59,85 | 66,0 A |
| RU0105730412 | 12V Blow. | 305 | 4 x 305 | 11200 | 59,85 | 60,0 A |
| RU0105730421 | 24V Suct. | 305 | 4 x 305 | 8644 | 59,85 | 41,2 A |
| RU0105730422 | 24V Blow. | 305 | 4 x 305 | 8200 | 59,85 | 36,4 A |
| RU0105730031/32 | 230V-50/60Hz Suct./Blow. | 350 | 630 | 18000 | 59,85 | 4,00 A |
| RU0105730431/32 | 230V-50/60Hz Suct./Blow. | 270 | 4 x 300 | 14980 | 59,85 | 6,2 A |
| RU0105730041/42 | 230/400V-50/60Hz 3FN Suct./Blo. | 350 | 630 | 19000 | 59,85 | 1,30 A |
| RU0105730441/42 | 230/400V-50/60Hz 3FN Suct./Blo. | 270 | 4 x 300 | 13400 | 59,85 | 1,92 A |
| RU0105730051 | Pred. Hydraulic. Suct. | 315 | 630 | 23600 | 59,85 | 7,4 kW |
| RU0105730052 | Pred. Hydraulic. Blow. | 315 | 630 | 23600 | 59,85 | 7,4 kW |

GRV SERIES

## TECH. SPEC.

| | |
|---|---|
| *Minimum Range* | Kw 58:60 lt |
| *Maximum Range* | Kw 78:280 lt |

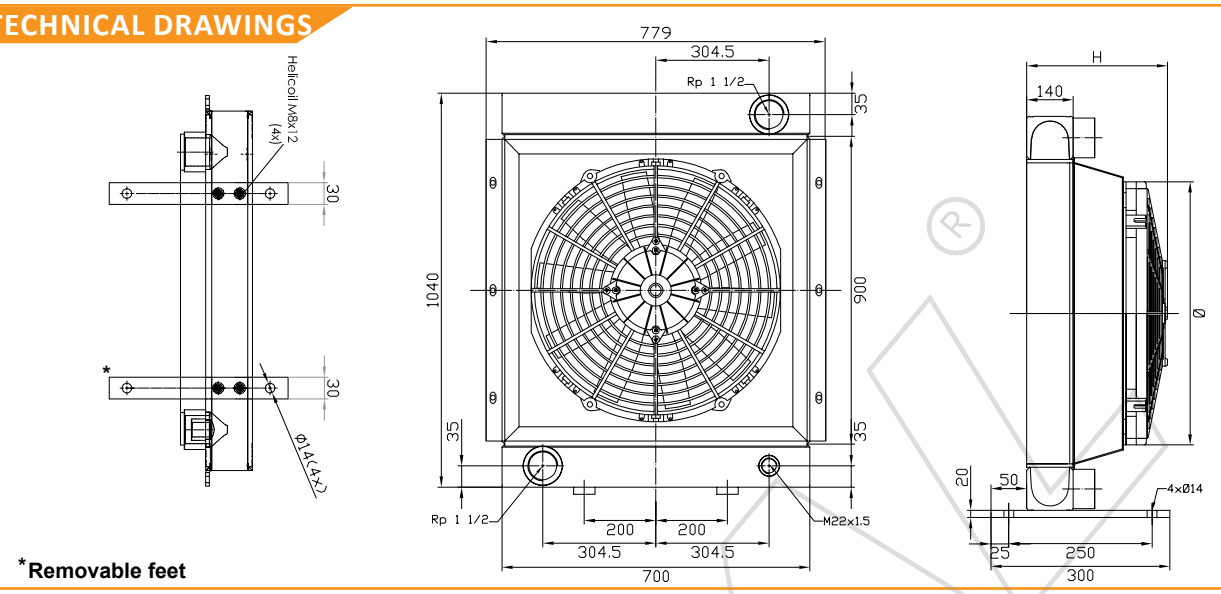


# GRV SERIES

## MOD. GRV 3000S

### TECHNICAL DRAWINGS



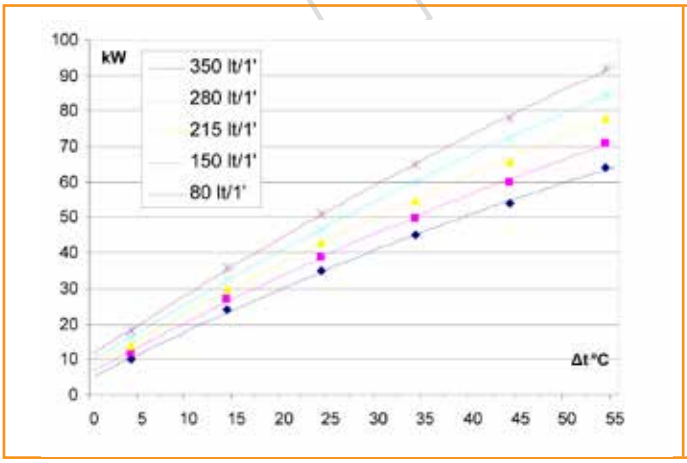

*Removable feet

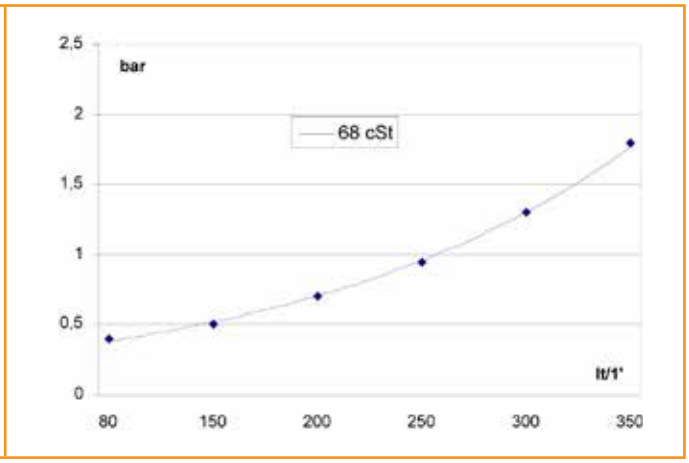
### COOLERS RANGE

| Product Code | Type of Setting | Overall H | Fan ø | Fan Power m³/h | M.R. dm³ | Power Consum. |
|---|---|---|---|---|---|---|
| RU0105740000 | UNCOVERED | 140 | - | - | 88,20 | - |
| RU0105740411 | 12V Suct. | 350 | 4 x 305 | 7356 | 88,20 | 66,0 A |
| RU0105740412 | 12V Blow. | 350 | 4 x 305 | 11200 | 88,20 | 60,0 A |
| RU0105740421 | 24V Suct. | 350 | 4 x 305 | 8644 | 88,20 | 41,2 A |
| RU0105740422 | 24V Blow. | 350 | 4 x 305 | 8200 | 88,20 | 36,4 A |
| RU0105740031/32 | 230V-50/60Hz Suct./Blow. | 395 | 630 | 18000 | 88,20 | 4,00 A |
| RU0105740431/32 | 230V-50/60Hz Suct./Blow. | 315 | 4 x 300 | 14980 | 88,20 | 6,2 A |
| RU0105740041/42 | 230/400V-50/60Hz 3FN Suct./Blo. | 395 | 630 | 19000 | 88,20 | 1,30 A |
| RU0105740441/42 | 230/400V-50/60Hz 3FN Suct./Blo. | 315 | 4 x 300 | 13400 | 88,20 | 1,92 A |
| RU0105740051 | Pred. Hydraulic. Suct. | 360 | 630 | 23600 | 88,20 | 7,4 kW |
| RU0105740052 | Pred. Hydraulic. Blow. | 360 | 630 | 23600 | 88,20 | 7,4 kW |

### TECH. SPEC.

| | |
|---|---|
| *Minimum Range* | Kw 65:80 lt |
| *Maximum Range* | Kw 92:350 lt |



# COOLERS

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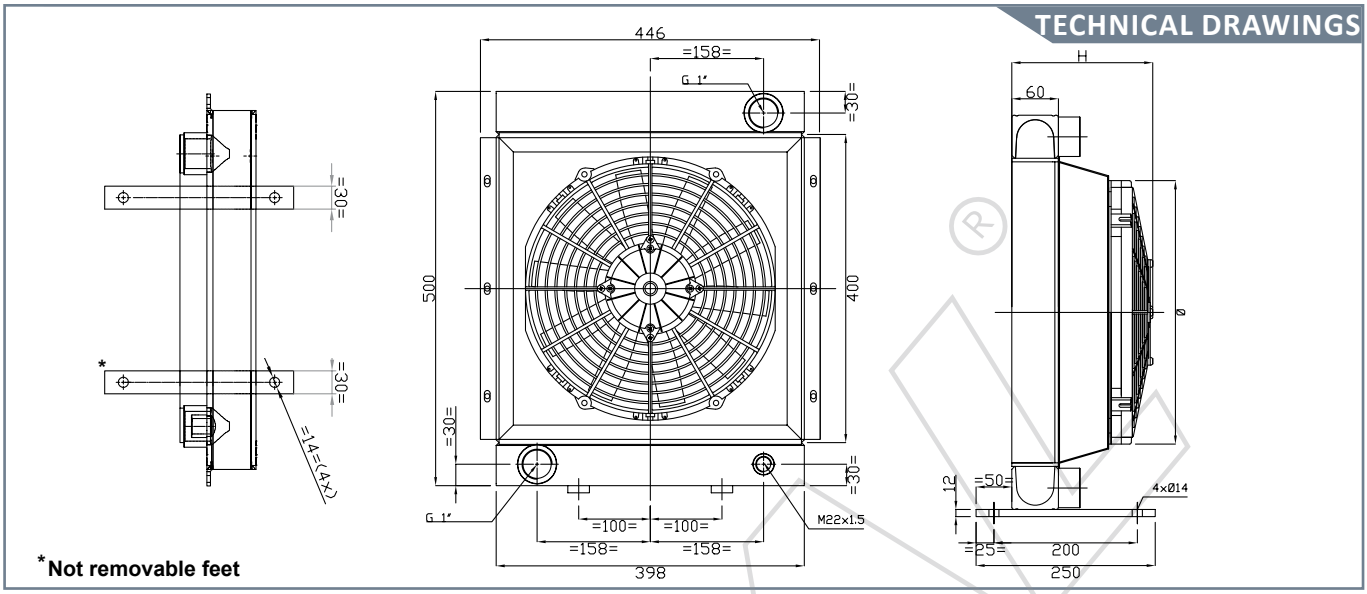
## T SERIES

# MOD. T3

T SERIES

## TECHNICAL DRAWINGS



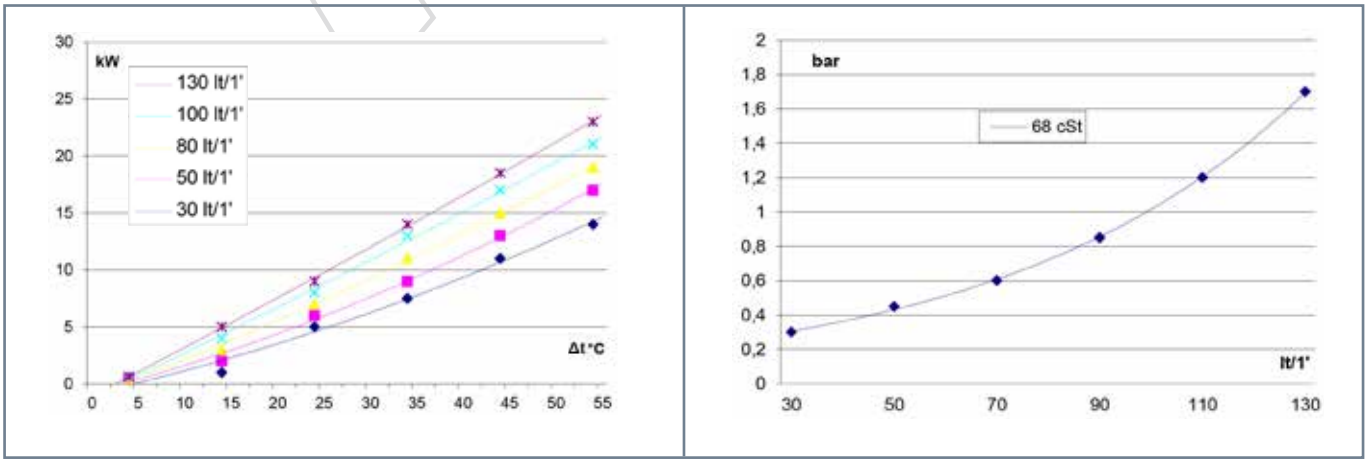

## COOLERS RANGE

| Product Code | Type of Setting | Overall H | Fan ø | Fan Power m³/h | M.R. dm³ | Power Consumpt. |
|---|---|---|---|---|---|---|
| RUT105680000 | UNCOVERED | 65 | - | - | 9,85 | - |
| RUT105680011 | 12V Suct. | 230 | 305 | 1839 | 9,85 | 16,5 A |
| RUT105680012 | 12V Blow. | 230 | 305 | 2800 | 9,85 | 15,0 A |
| RUT105680021 | 24V Suct. | 230 | 305 | 2161 | 9,85 | 10,3 A |
| RUT105680022 | 24V Blow. | 230 | 305 | 2050 | 9,85 | 9,1 A |
| RUT105680031 | 230V-50/60Hz Suct. | 195 | 300 | 3745 | 9,85 | 1,55 A |
| RUT105680032 | 230V-50/60Hz Blow. | 195 | 300 | 3745 | 9,85 | 1,55 A |
| RUT105680041 | 230/400V-50/60Hz 3FN Suct. | 195 | 300 | 3350 | 9,85 | 0,48 A |
| RUT105680042 | 230/400V-50/60Hz 3FN Blow. | 195 | 300 | 3350 | 9,85 | 0,48 A |
| RUT105680051 | Pred. Hydraulic. Suct. | 245 | 300 | 3080 | 9,85 | 0,41 kW |
| RUT105680052 | Pred. Hydraulic. Blow. | 245 | 300 | 3080 | 9,85 | 0,41 kW |

T SERIES

## TECH. SPEC.

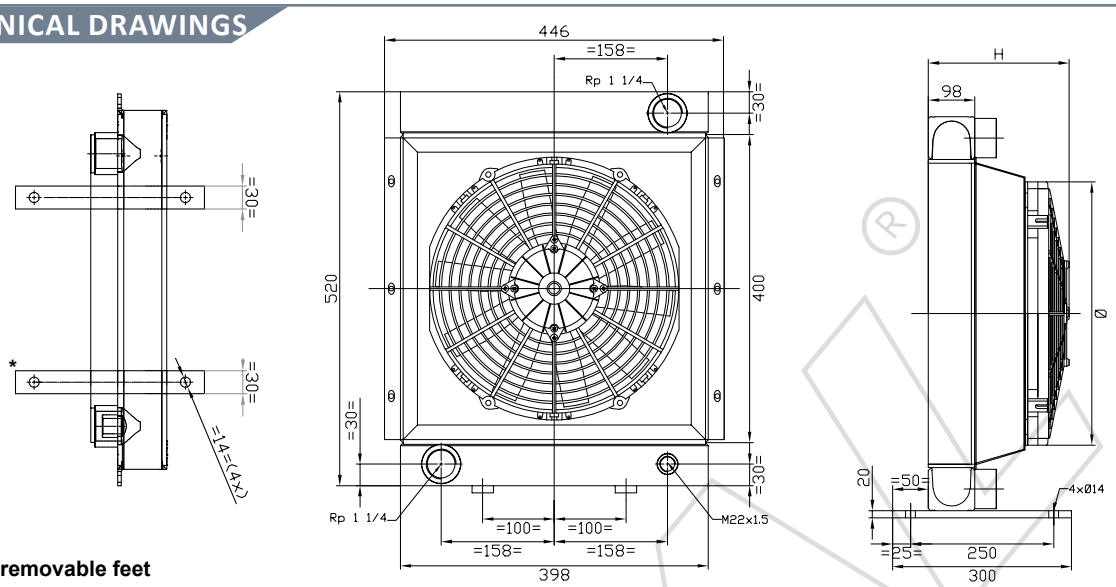
| | |
|---|---|
| *Minimum Range* | Kw 14:30 lt |
| *Maximum Range* | Kw 23:130 lt |



# T SERIES

## MOD. T4

### TECHNICAL DRAWINGS



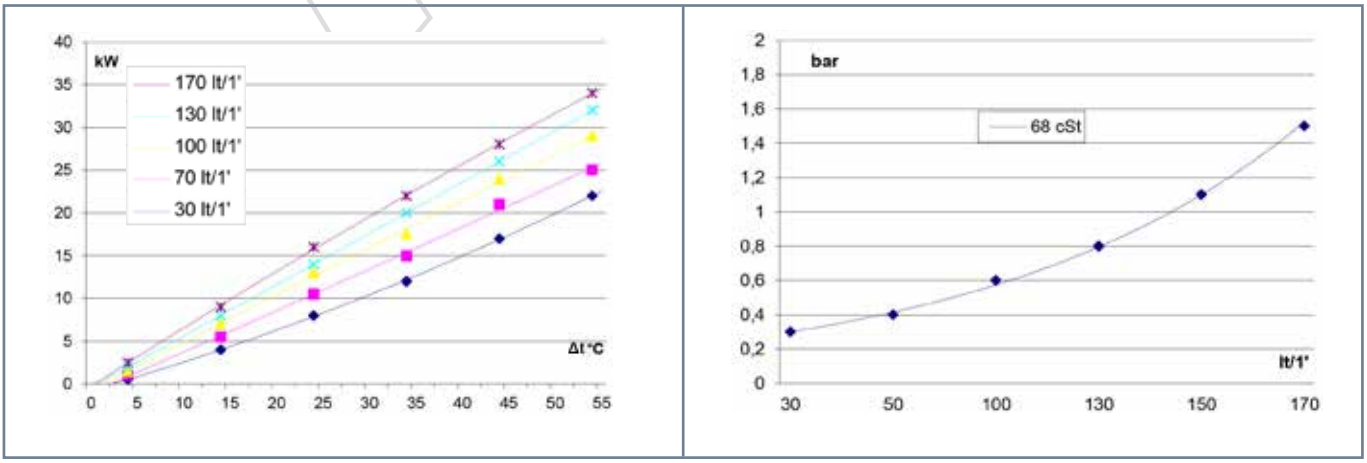

*Not removable feet

### COOLERS RANGE

| Product Code | Type of Setting | Overall H | Fan ø | Fan Power m³/h | M.R. dm³ | Power Consumpt. |
|---|---|---|---|---|---|---|
| RUT105690000 | UNCOVERED | 95 | - | - | 14,70 | - |
| RUT105690011 | 12V Suct. | 260 | 305 | 1839 | 14,70 | 16,5 A |
| RUT105690012 | 12V Blow. | 260 | 305 | 2800 | 14,70 | 15,0 A |
| RUT105690021 | 24V Suct. | 260 | 305 | 2161 | 14,70 | 10,3 A |
| RUT105690022 | 24V Blow. | 260 | 305 | 2050 | 14,70 | 9,1 A |
| RUT105690031 | 230V-50/60Hz Suct. | 225 | 300 | 3745 | 14,70 | 1,55 A |
| RUT105690032 | 230V-50/60Hz Blow. | 225 | 300 | 3745 | 14,70 | 1,55 A |
| RUT105690041 | 230/400V-50/60Hz 3FN Suct. | 225 | 300 | 3350 | 14,70 | 0,48 A |
| RUT105690042 | 230/400V-50/60Hz 3FN Blow. | 225 | 300 | 3350 | 14,70 | 0,48 A |
| RUT105690051 | Pred. Hydraulic. Suct. | 275 | 300 | 3080 | 14,70 | 0,41 kW |
| RUT105690052 | Pred. Hydraulic. Blow. | 275 | 300 | 3080 | 14,70 | 0,41 kW |

### TECH. SPEC.

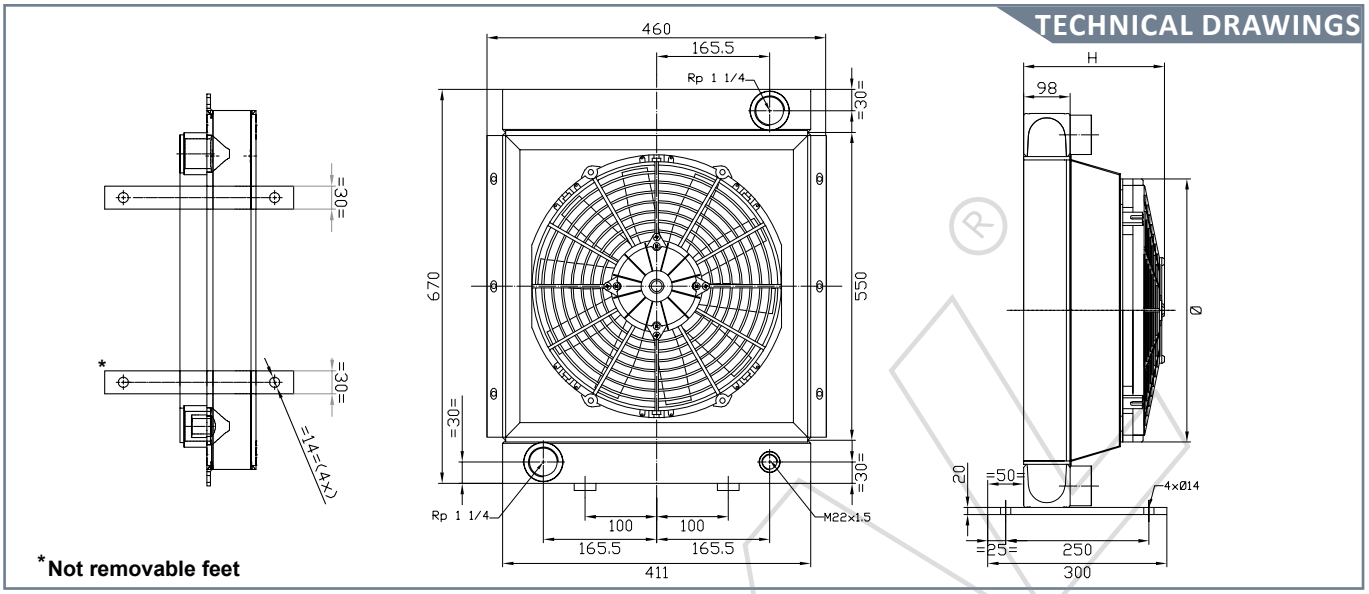
| | |
|---|---|
| *Minimum Range* | Kw 22:30 lt |
| *Maximum Range* | Kw 34:170 lt |



# MOD. T5

T SERIES

## TECHNICAL DRAWINGS



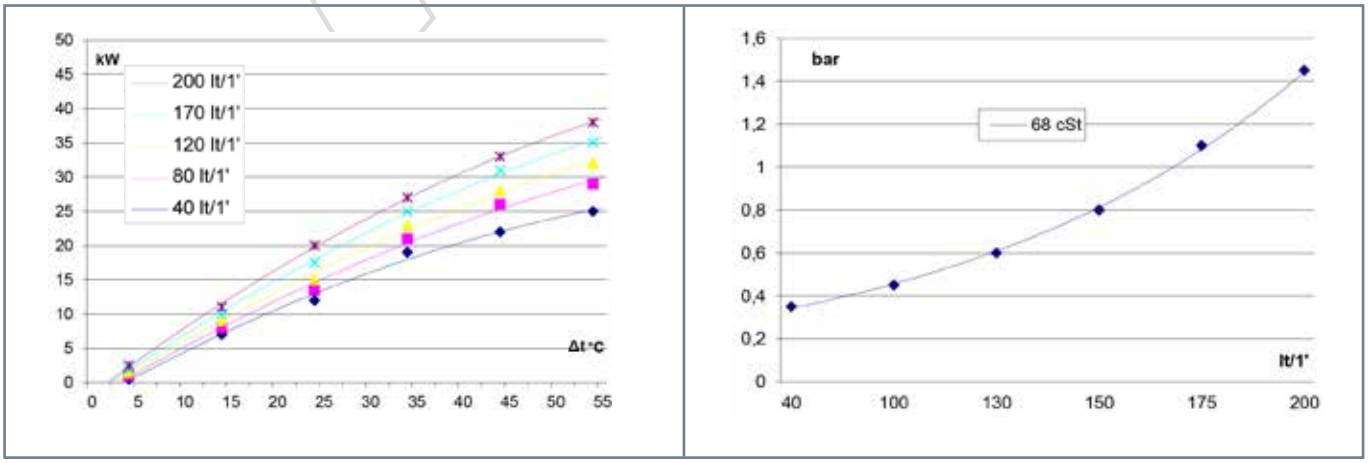

## COOLERS RANGE

| Product Code | Type of Setting | Overall H | Fan ø | Fan Power m³/h | M.R. dm³ | Power Consum. |
|---|---|---|---|---|---|---|
| RUT105700000 | UNCOVERED | 95 | - | - | 21,06 | - |
| RUT105700011 | 12V Suct. | 260 | 385 | 2212 | 21,06 | 16,0 A |
| RUT105700012 | 12V Blow. | 260 | 385 | 2412 | 21,06 | 16,2 A |
| RUT105700021 | 24V Suct. | 260 | 385 | 2577 | 21,06 | 9,3 A |
| RUT105700022 | 24V Blow. | 260 | 385 | 2609 | 21,06 | 9,0 A |
| RUT105700031 | 230V-50/60Hz Suct. | 250 | 400 | 4950 | 21,06 | 1,06 A |
| RUT105700032 | 230V-50/60Hz Blow. | 250 | 400 | 4950 | 21,06 | 1,06 A |
| RUT105700041 | 230/400V-50/60Hz 3FN Suct. | 250 | 400 | 4615 | 21,06 | 0,39 A |
| RUT105700042 | 230/400V-50/60Hz 3FN Blow. | 250 | 400 | 4615 | 21,06 | 0,39 A |
| RUT105700051 | Pred. Hydraulic. Suct. | 270 | 400 | 7050 | 21,06 | 1,5 kW |
| RUT105700052 | Pred. Hydraulic. Blow. | 270 | 400 | 7050 | 21,06 | 1,5 kW |

T SERIES

## TECH. SPEC.

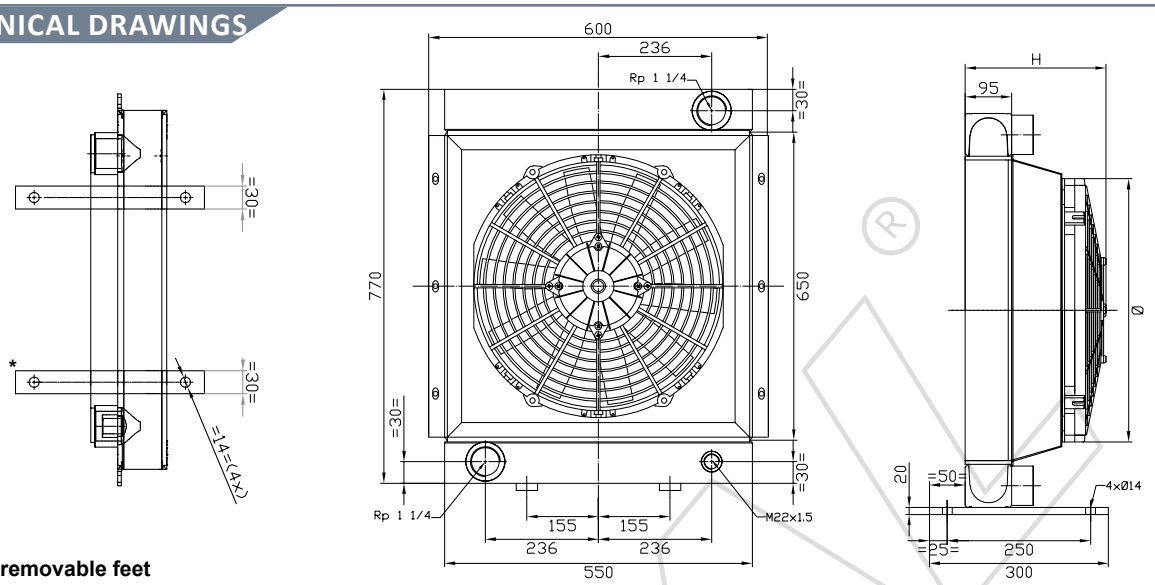
| | |
|---|---|
| *Minimum Range* | Kw 25:40 lt |
| *Maximum Range* | Kw 37:200 lt |



# T SERIES

## MOD. T6

### TECHNICAL DRAWINGS



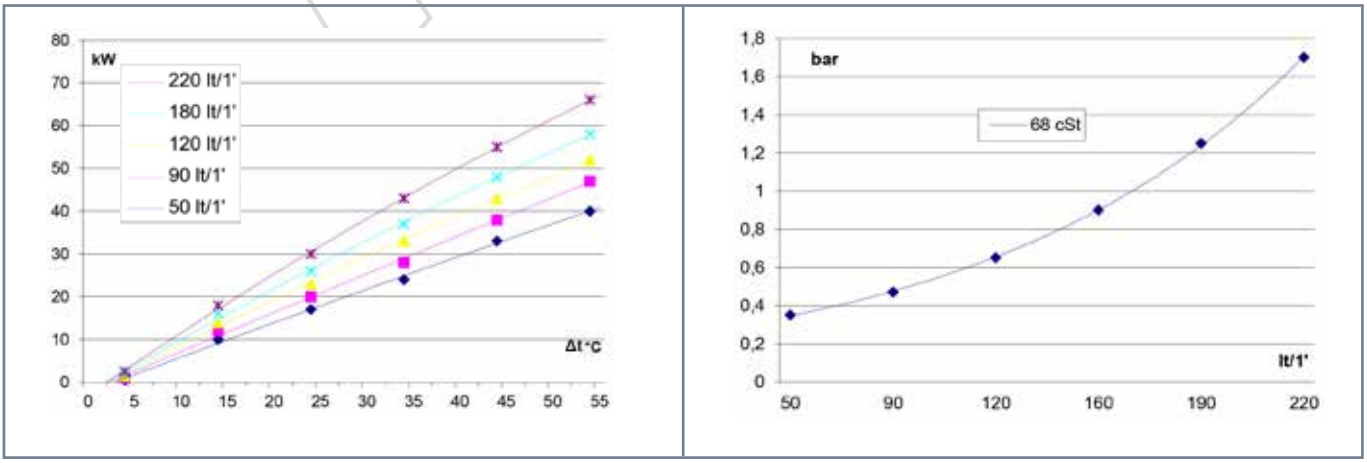

*Not removable feet

### COOLERS RANGE

| Product Code | Type of Setting | Overall H | Fan ø | Fan Power m³/h | M.R. dm³ | Power Consum. |
|---|---|---|---|---|---|---|
| RUT105710000 | UNCOVERED | 95 | - | - | 33,47 | - |
| RUT105710211 | 12V Suct. | 305 | 2 x 305 | 3678 | 33,47 | 33,0 A |
| RUT105710212 | 12V Blow. | 305 | 2 x 305 | 5600 | 33,47 | 30,0 A |
| RUT105710221 | 24V Suct. | 305 | 2 x 305 | 4322 | 33,47 | 20,6 A |
| RUT105710222 | 24V Blow. | 305 | 2 x 305 | 4100 | 33,47 | 18,2 A |
| RUT105710031/32 | 230V-50/60Hz Suct./Blow. | 305 | 500 | 11300 | 33,47 | 3,5 A |
| RUT105710231/32 | 230V-50/60Hz Suct./Blow. | 255 | 2 x 300 | 6820 | 33,47 | 3,1 A |
| RUT105710041/42 | 230/400V-50/60Hz 3FN Suct./Blo. | 305 | 500 | 11300 | 33,47 | 1,41 A |
| RUT105710241/42 | 230/400V-50/60Hz 3FN Suct./Blo. | 255 | 2 x 300 | 6700 | 33,47 | 0,96 A |
| RUT105710051 | Pred. Hydraulic. Suct. | 305 | 500 | 13300 | 33,47 | 4,1 kW |
| RUT105710052 | Pred. Hydraulic. Blow. | 305 | 500 | 13300 | 33,47 | 4,1 kW |

### TECH. SPEC.

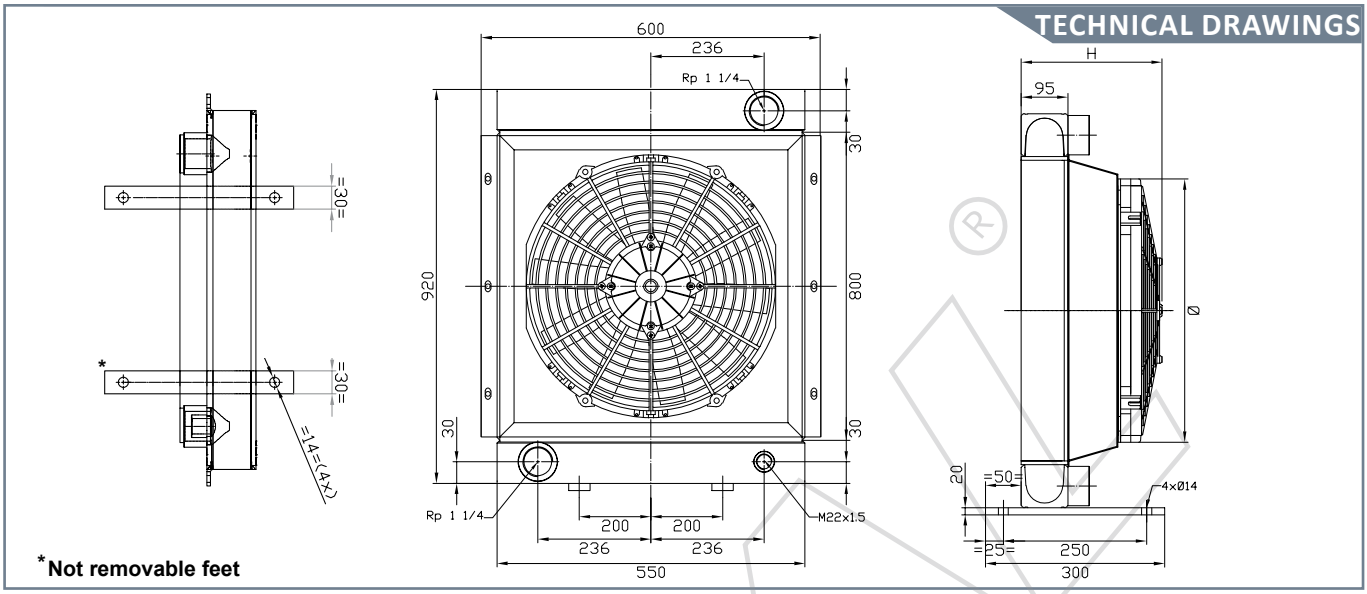
| | |
|---|---|
| *Minimum Range* | Kw 40:50 lt |
| *Maximum Range* | Kw 68:220 lt |



# MOD. T7

T SERIES

## TECHNICAL DRAWINGS



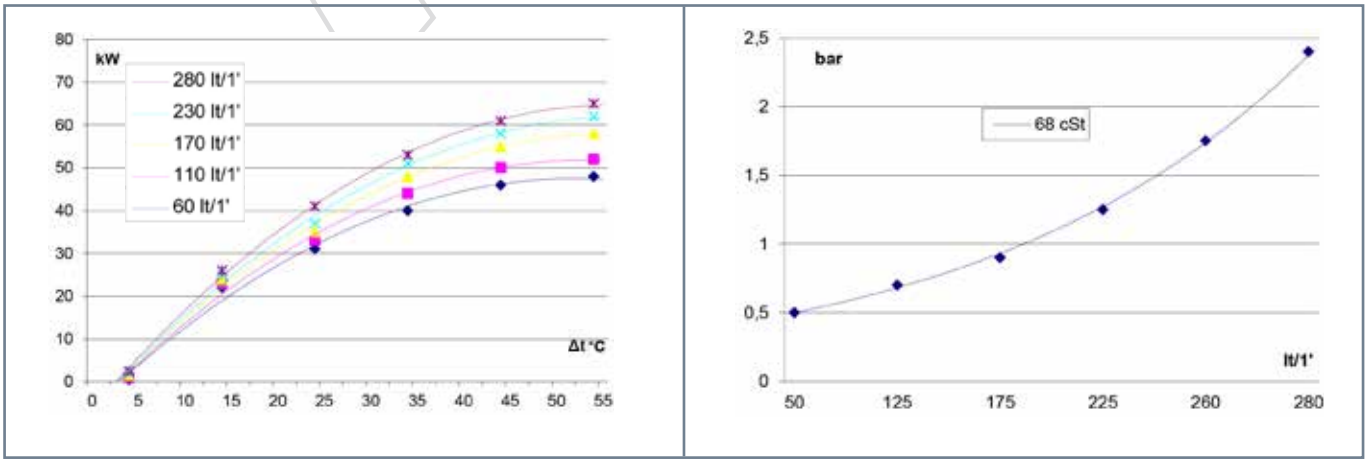

## COOLERS RANGE

| Product Code | Type of Setting | Overall H | Fan ø | Fan Power m³/h | M.R. dm³ | Power Consum. |
|---|---|---|---|---|---|---|
| RUT105730000 | UNCOVERED | 95 | - | - | 41,25 | - |
| RUT105730411 | 12V Suct. | 305 | 2 x 305 | 3678 | 41,25 | 33,0 A |
| RUT105730412 | 12V Blow. | 305 | 2 x 305 | 5600 | 41,25 | 30,0 A |
| RUT105730421 | 24V Suct. | 305 | 2 x 305 | 4322 | 41,25 | 20,6 A |
| RUT105730422 | 24V Blow. | 305 | 2 x 305 | 4100 | 41,25 | 18,2 A |
| RUT105730031/32 | 230V-50/60Hz Suct./Blow. | 305 | 500 | 11300 | 41,25 | 3,5 A |
| RUT105730431/32 | 230V-50/60Hz Suct./Blow. | 255 | 2 x 300 | 6820 | 41,25 | 3,1 A |
| RUT105730041/42 | 230/400V-50/60Hz 3FN Suct./Blo. | 305 | 500 | 11300 | 41,25 | 1,41 A |
| RUT105730441/42 | 230/400V-50/60Hz 3FN Suct./Blo. | 255 | 2 x 300 | 6700 | 41,25 | 0,96 A |
| RUT105730051 | Pred. Hydraulic. Suct. | 305 | 500 | 13300 | 41,25 | 4,1 kW |
| RUT105730052 | Pred. Hydraulic. Blow. | 305 | 500 | 13300 | 41,25 | 4,1 kW |

T SERIES

## TECH. SPEC.

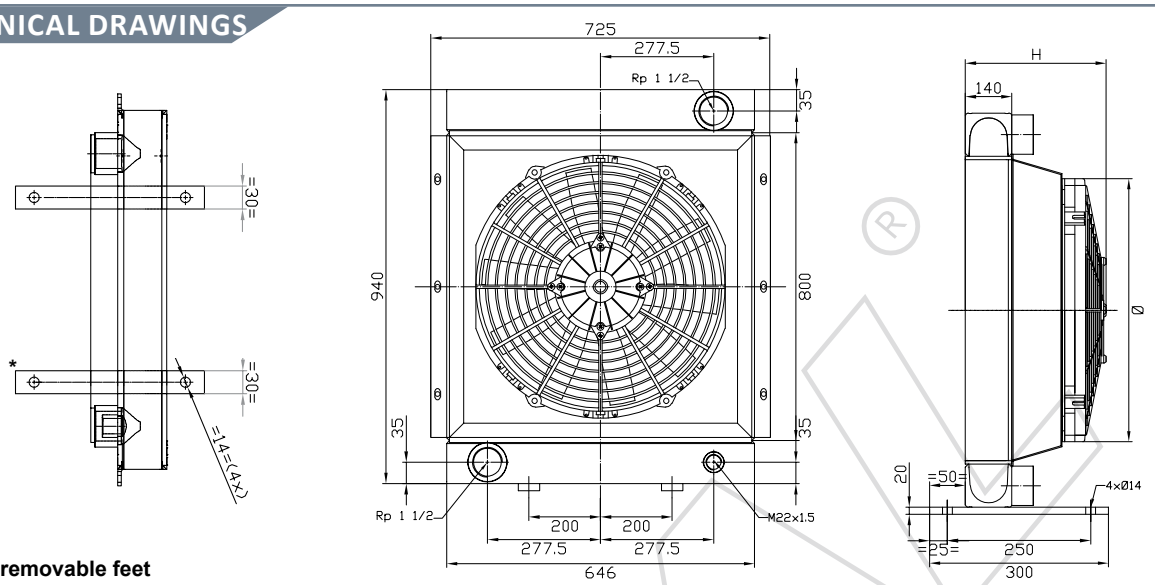
| | |
|---|---|
| *Minimum Range* | Kw 48:60 lt |
| *Maximum Range* | Kw 62:280 lt |



# T SERIES

## MOD. T8

### TECHNICAL DRAWINGS



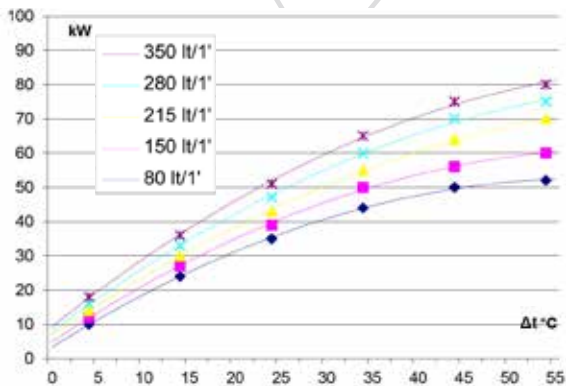

*Not removable feet

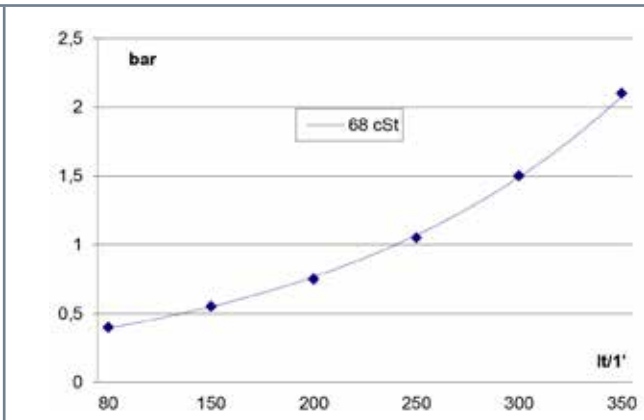
### COOLERS RANGE

| Product Code | Type of Setting | Overall H | Fan ø | Fan Power m³/h | M.R. dm³ | Power Consum. |
|---|---|---|---|---|---|---|
| RUT105740000 | UNCOVERED | 140 | - | - | 59,85 | - |
| RUT105740411 | 12V Suct. | 350 | 4 x 305 | 7356 | 59,85 | 66,0 A |
| RUT105740412 | 12V Blow. | 350 | 4 x 305 | 11200 | 59,85 | 60,0 A |
| RUT105740421 | 24V Suct. | 350 | 4 x 305 | 8644 | 59,85 | 41,2 A |
| RUT105740422 | 24V Blow. | 350 | 4 x 305 | 8200 | 59,85 | 36,4 A |
| RUT105740031/32 | 230V-50/60Hz Suct./Blow. | 395 | 630 | 18000 | 59,85 | 3,5 A |
| RUT105740431/32 | 230V-50/60Hz Suct./Blow. | 315 | 4 x 300 | 14980 | 59,85 | 6,2 A |
| RUT105740041/42 | 230/400V-50/60Hz 3FN Suct./Blo. | 395 | 630 | 19000 | 59,85 | 1,29 A |
| RUT105740441/42 | 230/400V-50/60Hz 3FN Suct./Blo. | 315 | 4 x 300 | 13400 | 59,85 | 1,92 A |
| RUT105740051 | Pred. Hydraulic. Suct. | 360 | 630 | 23600 | 59,85 | 7,4 kW |
| RUT105740052 | Pred. Hydraulic. Blow. | 360 | 630 | 23600 | 59,85 | 7,4 kW |

### TECH. SPEC.

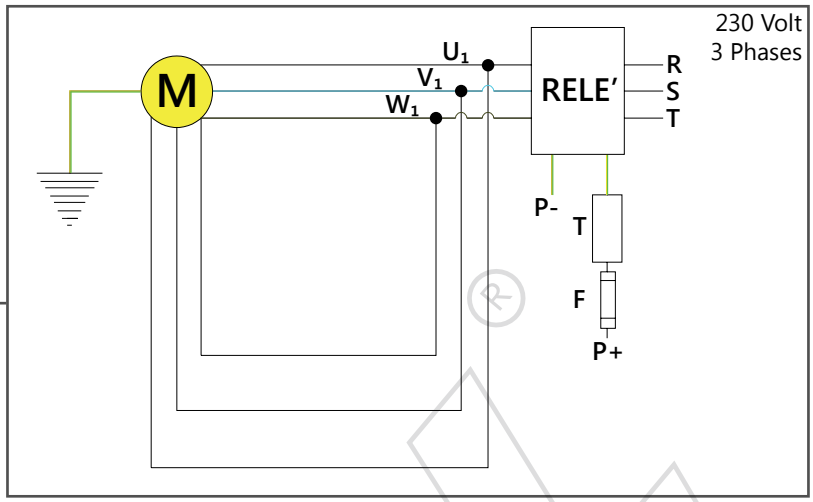
| | |
|---|---|
| *Minimum Range* | Kw 52:80 lt |
| *Maximum Range* | Kw 80:350 lt |



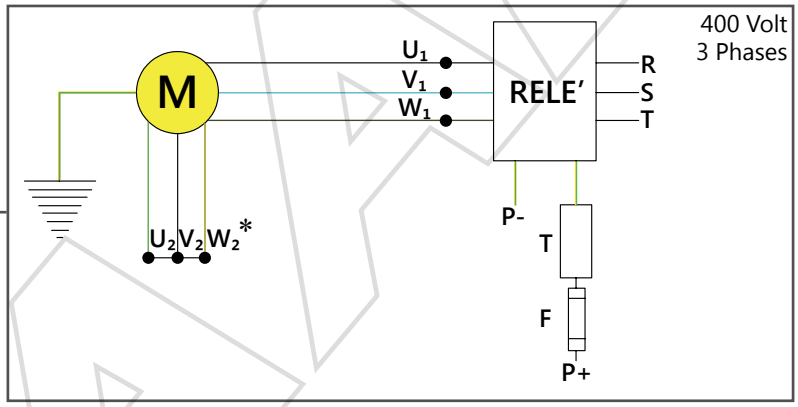



***Examples of different possibilities of electrical connections of the fans***

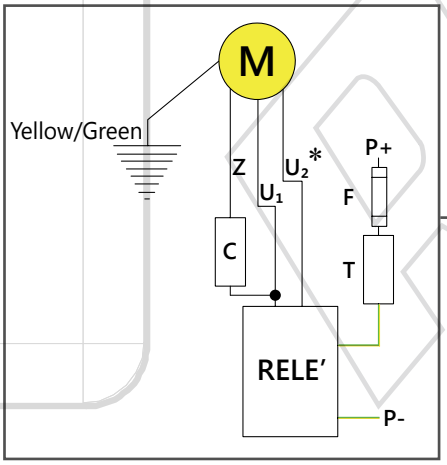
Connection 230 V AC delta




Connection 400 V AC star




Connecting 230 V AC




| | |
|---|---|
| U1 | BLACK |
| * U2 | GREEN |
| V1 | LIGHT BLUE |
| * V2 | WHITE |
| W1-Z | BROWN |
| * W2 | YELLOW |
| G | TERRA |
| P | RELAY POWER |
| R-S-T | THREE-PHASE POWER |
| T | THERMOSTAT |
| F | FUSE |

# ACCESSORIES

On customer request, RAAL exchangers can be equipped with ACCESSORIES SUPPORT (HOLDER) and THERMOSTATS.

ACCESSORIES must be specifically requested when ordering, indicating the type and calibration, in the specific case of THERMOSTATS.

## THERMOSTATS

### *MODEL "A" Type DIN - M22x1,5*

| | |
|---|---|
| TER00DIN7080 | 70/80 °C |
| TER00DIN6070 | 60/70 °C |
| TER00DIN5060 | 50/60 °C |
| TER00DIN4050 | 40/50 °C |

### *MODEL "B" Type FAST-ON UNCUFFED IP65 - M22x1,5*

| | |
|---|---|
| TER453251T60 | 60 °C |
| TER032503T50 | 50 °C |
| TER032503T40 | 40 °C |

### *MODEL "C" FAST-ON - M22x1,5*

| | |
|---|---|
| TER012503T60 | 50/58 °C |
| TER012503T48 | 40/48 °C |
| TER012503T40 | 30/38 °C |

### *ADJUSTABLE THERMOSTAT WITH GRADUATED KNOB 0-90 C°*

*For single phase models 220V GR series*

| |
|---|
| TERVAR000900 |

## FANS AND GRIDS

### LOW VOLTAGE GRIDS 12/24V (ø)

| Low Voltage Grids 12/24V | Models GRS/D | Models GRV | Models VT | Models T |
|---|---|---|---|---|
| 167/200/225-12V SUC/BLOW<br>167/200/225-24V SUC/BLOW | 25/50/100 | - | 50 | - |
| 305-12V SUCT/BLOW<br>305-24V SUCT/BLOW | 100-130-150-200-700 | 350-600-850-1100-3000 | 60-150 | T3-T4-T6-T7-T8 |
| 385-12V SUCT/BLOW<br>385-24V SUCT/BLOW | 300-500 | - | 180-210 | T5 |

(V) Fan 12/24V

### (ø) SINGLE/THREE PHASE POWER GRIDS - FANS 220/380

| (G) Fan's Grid 220/380<br>(V) Hydraulic Fan (ø) | Models GRS/D | Models GRV | Models VT | Models T |
|---|---|---|---|---|
| (G) 170/200 (H. m/m35/mm47)<br>(V)170/200-SUC/BLOW singl/thr. | 25/50 | - | 50 | - |
| (G) 300 H. 47m/m<br>(V)300-SUC/BLOW single/three | 100-130-150-200-700 | 350-600-850-1100-3000 | 60-150 | T3-T4-T6-T7-T8 |
| (G) 400 H. 85m/m<br>(V)400-SUC/BLOW single/three | 300-500 | - | 180-210 | T5 |
| (G) 500 H. 110m/m<br>(V)500H.-SUC/BLOW singl/thr. | 700 | 850-1100 | - | T6-T7 |
| (G) 630 H.137m/m<br>(V)630-SUC/BLOW single/three | - | 1500-3000 | - | T8 |

(G) Fan's grid 220/380

(V) Fan 220/380

### (ø) GRIDS(GR1/GR2) - HYDRAULIC FANS

| (G) Hydraulic Pred. Grid<br>(V) Hydraulic Fan (ø) | Models GRS/D | Models GRV | Models VT | Models T |
|---|---|---|---|---|
| (G) 170/200 (H. m/m35/mm47)<br>(V)170/200-SUC/BLOW(SX/DX) | 25/50 | - | 50 | - |
| (G) 300 H. 47m/m<br>(V) 300-SUC/BLOW (SX/DX) | 100-130-150-200-700 | 350-600-850-1100-3000 | 60-150 | T3-T4-T6-T7-T8 |
| (G) 400 H. 46m/m<br>(V) 400-SUC/BLOW (SX/DX) | 300-500 | - | 180-210 | T5 |
| (G) 500 H. 45m/m<br>(V) 500H.-SUC/BLOW (SX/DX) | 700 | 850-1100 | - | T6-T7 |
| (G) 630 H.70m/m<br>(V) 630-SUC/BLOW (SX/DX) | - | 1500-3000 | - | T8 |

(G) Hydraulic Pred. Grid

(V) Hydraulic Fan

# ACCESSORIES

| * KIT BRACKETS | KIT BRACKETS |
|---|---|
|  | STU000002000 |
| *** VIBRATION DAMPER KIT FOR MOUNTING BRACKETS** | **VIBRATION DAMPER KIT FOR MOUNTING BRACKETS** |
|  | ANT000002000 |
| **VALVOLE BY-PASS E TAPPI** | **VALVOLE BY-PASS** |
|  | VAL0000CUR01 - 1,5 bar / 3,5 bar<br>VAL0000CUR26 - 1,5 bar / 3,5 bar<br>VAL0000CUR55 - 1,5 bar / 3,5 bar |
| **CAPS** | **CAPS** |
|  | TAP0000CUR26<br>TAP0000CUR55 |
| **WATER CAPS** | **OVAL METAL RAAL CAP - SMALL** |
|  | TAPOVAPI0009<br>**OVAL METAL RAAL CAP - MEDIUM**<br>TAPOVAME0009<br>**"MOTO" PLASTIC CAP + VENT**<br>TAPMOTOSFI10 |
| *** ELECTRICAL CAPACITORS** | **ELECTRICAL CAPACITORS** |
|  | 1,5UF - CON100610031<br>3UF - CONORU863600<br>5UF - CON100690031 |

** These products can be used on all STANDARD models*

# HYDRAULIC MOTORS AND SUPPORTS

| * HYDRAULIC MOTORS GR1/GR2 | HYDRAULIC MOTOR (BIDIRECTIONAL) GR1 |
|---|---|
|   | MOTGR1059000 -Motor GR1 5,9cc.BIDIRECTIONAL |
| | **HYDRAULIC MOTOR (UNIDIRECTIONAL/BIDIRECTIONAL) GR2** |
| | MOTGR2083000 -Motor GR2 8,3cc.BIDIRECTIONAL |
| | MOTGR20830SX -Motor GR2 8,3cc.UNIDIR.ROTSX |
| | MOTGR2113000 -Motor GR2 11,3cc.BIDIRECTIONAL |
| | MOTGR21130DX -Motor GR2 11cc.UNIDIR.ROTDX |
| | MOTGR21130SX -Motor GR2 11cc.UNIDIR.ROTSX |
| *** HYDRAULIC MOTOR GR2 WITH INTEGRATED SUPPORT** | **HYDRAULIC MOTOR WITH INTEGRATED SUPPORT** |
|  GR2 + INTEGRATED SUPPORT | MOTGR2110 SUP -Motor GR2 11,3cc.BIDIRECTIONAL + Support |
| *** SUPPORTS AND HYDRAULIC COUPLING HALVES PREPARATION GR1/GR2** | **SUPPORT + HYDRAULIC COUPLING HALVES PREPARATION GR1** |
|   | SUP100610051 G1 |
| | SEM100610051 G1 |
| | **SUPPORT + HYDR. COUPLING HALVES PREP. GR2** |
| | SUP100690051 G2 |
| | SUP100690051 G2 |

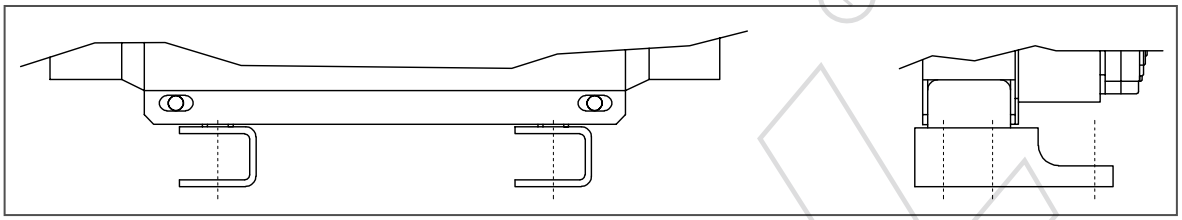
** These products can be used on all STANDARD models*

# FIXING/INSTALLATION

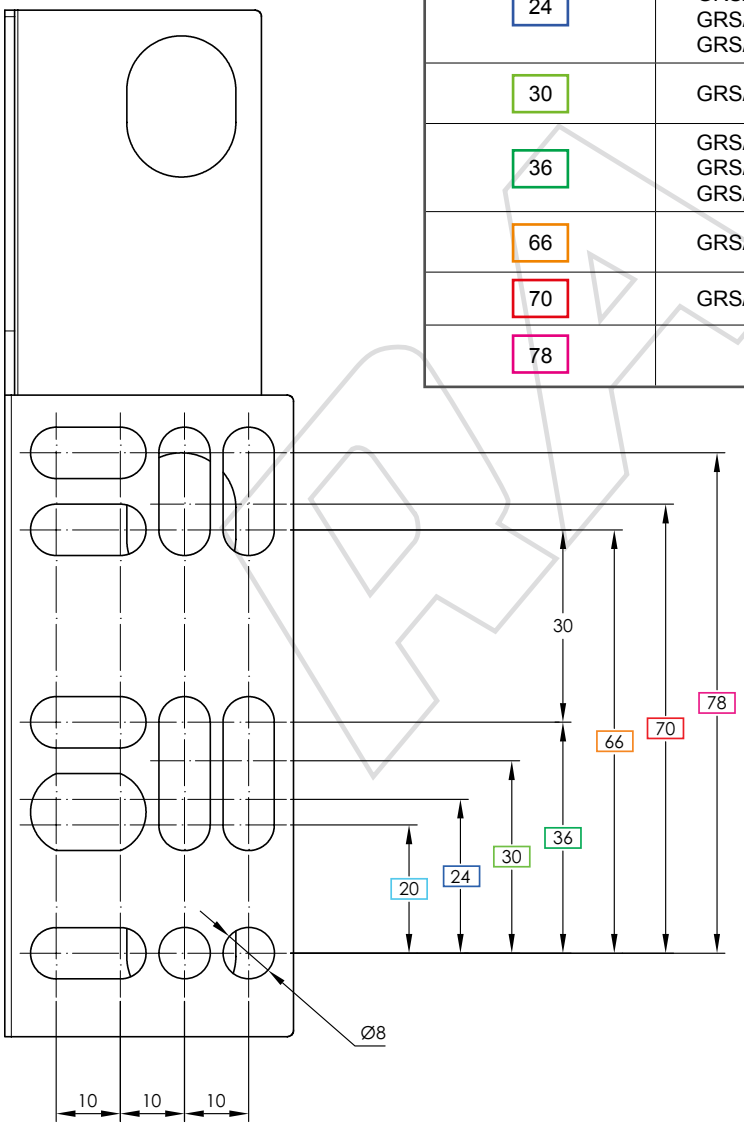
As you can see, the correct installation of the fixing feet is very simple, because the prints are designed for positioning twice right or left, and with availability of many different fixing positions, one of which is adjustable, a a fixing system extremely innovative and unique.

This system allows while monitoring, an extreme adaptability to the chassis or equipment, where you want to install your RAAL ITALY exchanger.

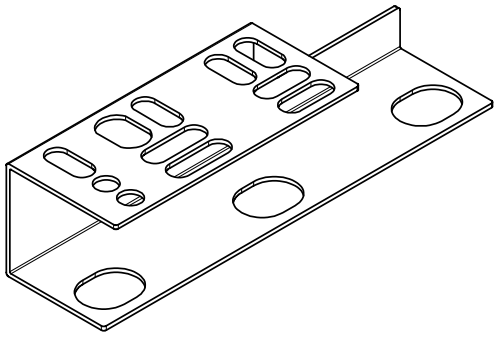
For a correct and functional installation, we recommend utilisation of special anti-vibration support.



| Interaxe [mm] | GR Series | BY-PASS Series | VT Series |
|---|---|---|---|
| 20 | GRS 25<br>GRS 100L | - | - |
| 24 | GRS/D 50<br>GRS/D 100<br>GRS/D 120<br>GRS/D 130 | GRS/D By-Pass 50<br>GRS/D By-Pass 100<br>GRS/D By-Pass 130 | VTS/D 50<br>VTS/D 60 |
| 30 | GRS/D 80 | - | - |
| 36 | GRS/D 150<br>GRS/D 200<br>GRS/D 300 | GRS/D By-Pass 150<br>GRS/D By-Pass 200<br>GRS/D By-Pass 300 | VTS/D 150<br>VTS/D 180<br>VTS/D 210 |
| 66 | GRS/D 500 | GRS/D By-Pass 500 | - |
| 70 | GRS/D 700 | - | - |
| 78 | - | - | VTS/D 210 |



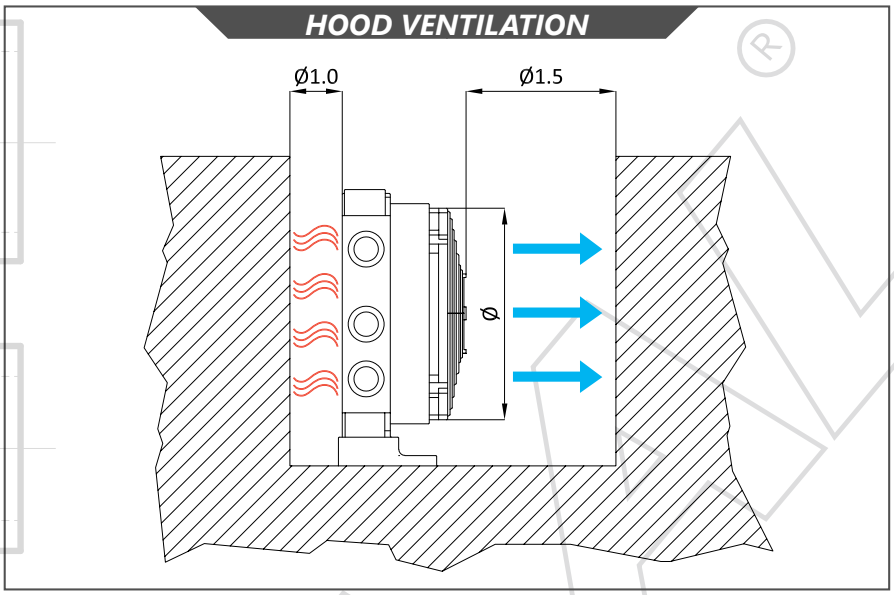

The *bracket* realized for RAAL ITALY exchangers, sheet metal zinc is unique, and has been studied specifically to be unified on all models.

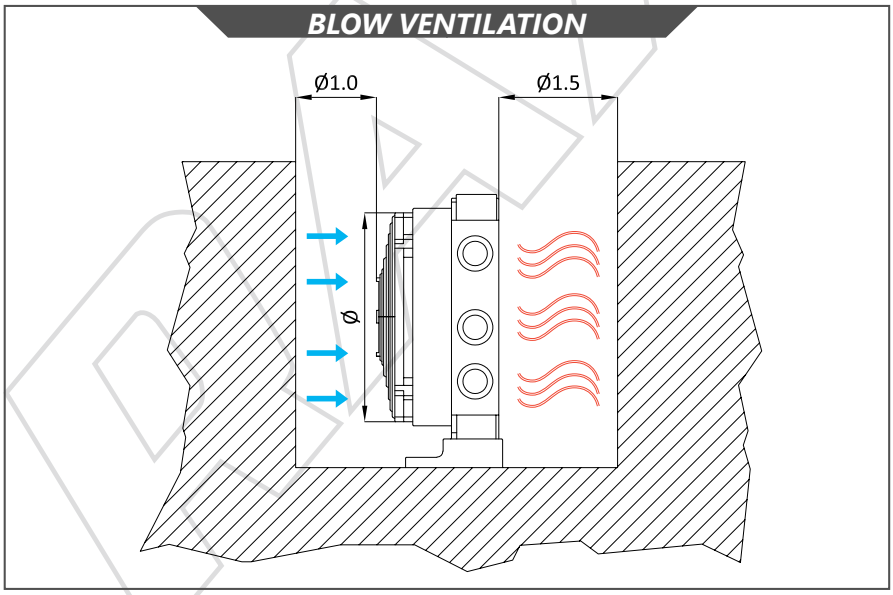


## *Proper Installation*

For a correct and functional installation, the positioning of exchanger must allow the type of ventilation (***inflow*** or ***outflow***).

The exchanger can be mounted in vertical or horizontal position, maintaining the minimum distance from the wall to ensure a natural inflow and outflow of cooling air (as in figure).




## *Maintenance*

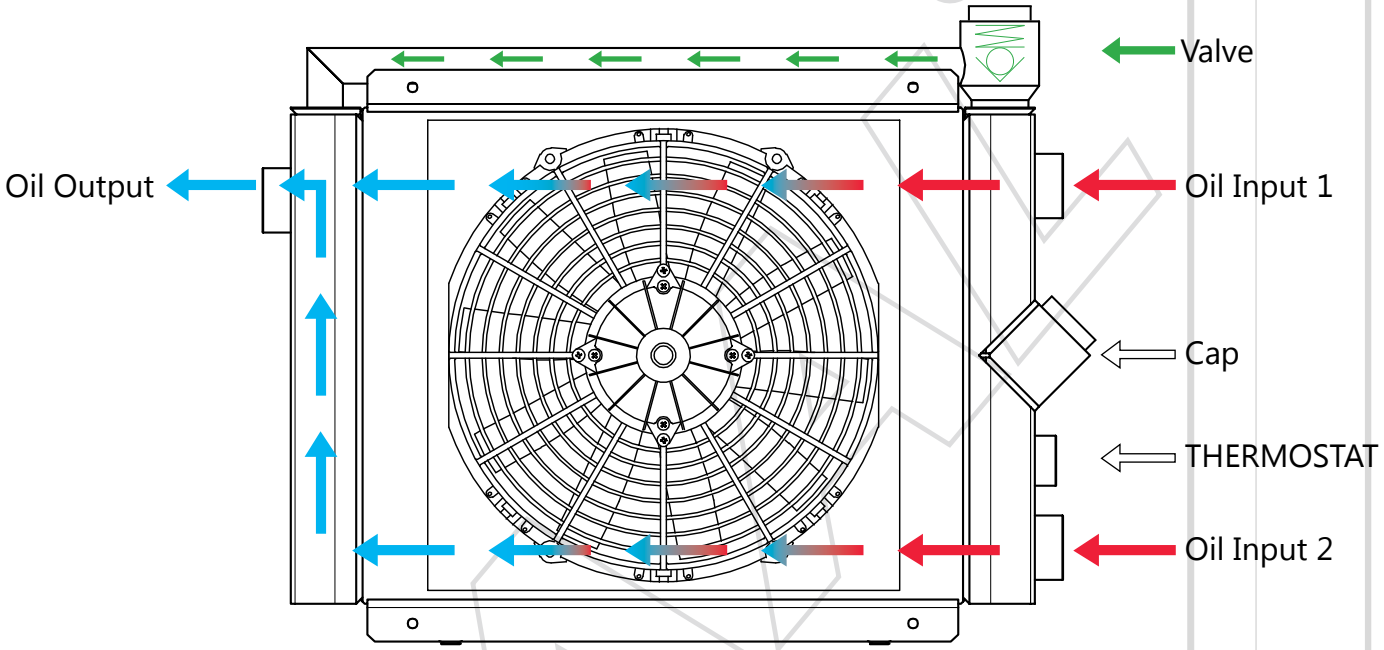
***Clean air side -*** Use compressed air to clean exchanger's core. Make sure that the direction of the air flow is parallel to the fins to avoid damaging them. If the obstruction of the exchanger is caused by an accumulation of oil or grease, the cleaning can be carried out with a steam or hot water's jet. During these operations, the electric motor must be protected.

### *Utilisation with BYPASS valve*

RAAL exchangers, are perfectly suited to all types of hydraulic (OLEDYNAMIC) circuits and are normally installed on the return line.

If this is not possible, in order to prevent over pressures, which can undermine the exchanger, we recommend utilisation of a heat exchanger of our BY-PASS line.

**SINGLE CIRCUIT CONNECTION**




**DOUBLE CIRCUIT CONNECTION**