

# Italgroup<sup>®</sup>

*HYDRAULIC MOTORS*

 ITALY



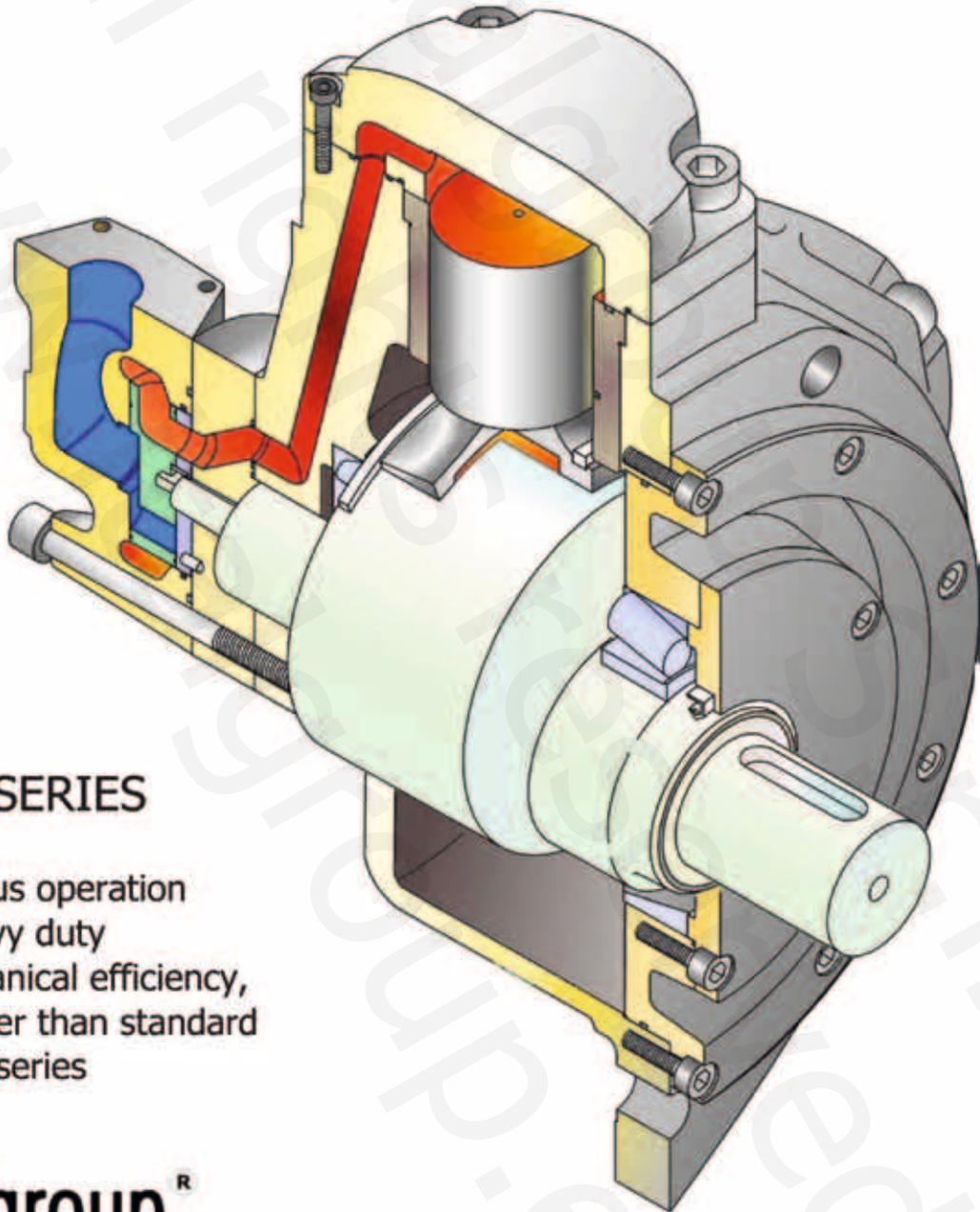
**IAMD**

*Single displacement hydraulic motors - Heavy duty*

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## IAMD SERIES

- Continuous operation
- Heavy duty
- Higher mechanical efficiency, speed and power than standard IAM series

## MOTOR TECHNICAL DATA

Motor	Size	Displacement	Theoretical Torque	Max cont. Pressure	Max cont. Speed	Max cont. Power (*)	Maximum Power	Dry Weight	Inertia Moment
		[cc]	[Nm/bar]	[bar]	[rpm]	[kW]	[kW]	[kg]	[kg cm <sup>2</sup> ]
IAMD 400	H3	397	6,3	270	750	80	120	68	214
IAMD 450	H3	452	7,2	270	750	80	120	68	214
IAMD 500	H3	491	7,8	270	750	80	120	68	214
IAMD 700	H4	714	11,4	270	500	120	150	92	267
IAMD 800	H4	792	12,6	270	450	120	150	92	267
IAMD 1000	H4	992	15,8	270	355	120	150	92	267
IAMD 1400	H5	1376	21,9	270	410	165	200	173	697
IAMD 1600	H5	1648	26,2	270	370	165	200	173	697
IAMD 1800	H5	1815	28,9	270	340	165	200	173	697
IAMD 2200	H6	2220	35,3	270	325	210	235	308	1745
IAMD 2500	H6	2525	40,2	270	285	210	235	308	1745
IAMD 3000	H6	3028	48,2	270	235	210	235	308	1745
IAMD 3500	H6	3479	55,4	270	210	210	235	308	1745
IAMD 3900	H7	3907	62,2	270	175	230	258	405	4064
IAMD 4300	H7	4343	69,1	270	160	230	258	405	4064
IAMD 4600	H7	4616	73,5	270	150	230	258	405	4064
IAMD 5000	H7	5088	81,0	270	140	230	258	405	4064
IAMD 5400	H7	5384	85,7	270	130	230	258	405	4064
IAMD 6000	H8	5966	95,0	250(**)	120	190	215	590	5380
IAMD 6500	H8	6581	104,7	250(**)	120	190	215	590	5380
IAMD 6800	H8	6962	110,8	250(**)	120	190	215	590	5380
IAMD 7600	H8	7620	121,3	190(**)	90	190	215	590	5380
IAMD 8000	H8	8062	128,3	180(**)	80	190	215	590	5380

For all motors :

- Peak Speed = +15% of Max cont. Speed (do not exceed Maximum Power)
- Intermittent Pressure: 320 bar
- Peak Pressure: 350 bar
- (\*) Flushing required
- (\*\*) Please refer to page 31 for intermittent and peak pressure values

### Fluid selection

In general, we recommend the use of hydraulic oils with minimum viscosity index of 95, with anti-wear additives (ISO HM and HV). Once normal working temperature is reached, the drain oil viscosity must be at least 44 cSt, preferably in the range from 50 to 80 cSt. HE oils (ecological fluids) are allowed, but must be used with particular attention, because they can influence the motor seals compatibility, and can reduce motor performances and life. Please contact us in case of HE oils usage.

### Optimal viscosity selection

Referring the first approximated selection to the room temperature, we advice the following:

-20°C/0°C	BP ENERGOL HLP – HM 22
-15°C/+5°C	BP ENERGOL HLP – HM 32
-8°C/+15°C	BP ENERGOL HLP – HM 46
0°C/+22°C	BP ENERGOL HLP – HM 68
+8°C/+30°C	BP ENERGOL HLP – HM 100
-20°C/+5°C	BP BARTRAN HV 32
-15°C/+22°C	BP BARTRAN HV 46
0°C/+30°C	BP BARTRAN HV 68

ATF (automatic transmission fluid) oils, SAE 10-20-30 W oils, multigrade motor oils (SAE 15 W 40, 10 W 40), universal oils, can also be used. Always fill the motor (please refer to the "DRAIN RECOMMENDATIONS" section) with the selected hydraulic fluid before motor start-up. During cold start-up avoid high-speed operation until the system reach the working temperature, in order to provide an adequate lubrication. Every 5-8 °C of increase respect to the optimal working temperature for the selected oil, the hydraulic fluid life decrease of about 40-50% (refer to "OXIDATION" section). Consequently, the motor lifetime will be affected by the working temperature increase respect to the optimal working temperature of the selected oil.

The maximum continuous working temperature is 70 °C, the temperature must be measured from motor drain line. If the motor doesn't have a drain line, the temperature must be evaluated at the return line port.

### Fire resistant oil limitations

	Max cont. Pressure	Max int. Pressure	Max Speed
HFA, 5-95% oil-water	103	138	50%
HFB, 60-40% oil-water	138	172	100%
HFC, water-glycol	103	138	50%
HFD, ester phosphate	250	293	100%

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### Filtration

Hydraulic systems oil must always be filtered.

The choice of filtration grade derives from needs of service life and money spent. In order to obtain stated service life it is important to follow our recommendations concerning filtration grade. When choosing the filter it is important to consider the amount of dirt particles that filter can absorb and still operate satisfactorily. For that reason we recommend filters showing when you need to substitute filtering cartridge.

- 25 µm filtration required in most applications
- 10 µm filtration in closed circuit applications

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### Oxidation

Hydraulic oil oxidizes with time of use and temperature. Oxidation causes changes in colour and smell, acidity increase or sludge formation in the tank. Oxidation rate increases rapidly at surface temperatures above 60°C, in these situations oil should be checked more often. The oxidation process increases the acidity of the fluid; the acidity is stated in terms of the "neutralization number". Oxidation is usually slow at the beginning and then it increases rapidly.

A sharp increase (by a factor of 2 to 3) in neutralization number between inspections shows that oil has oxidized too much and should be replaced immediately.

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### Water content

Oil contamination by water can be detected by sampling from the bottom of the tank. Most hydraulic oils repel the water, which then collects at the bottom of the tank. This water must be drained off at regular intervals. Certain types of transmission oils and engine oils emulsify the water; this can be detected by coatings on filter cartridges or a change in the colour of the oil. In such cases, obtain your oil supplier advice.

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### Degree of contamination

Heavy contamination of the oil causes wear rising in hydraulic system components. Contamination causes must be immediately investigated and remedied.

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### Analysis

It is recommended oil being analyzed every 6 months. The analysis should cover viscosity, oxidation, water content, additives and contamination. Most oil suppliers are equipped to analyze oil state and to recommend appropriate action. Oil must be immediately replaced if the analysis shows that it is exhausted.

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## INSTRUCTIONS AND ADVICES

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### Installation

Hoses and piping must be clean and free from contamination. No other special requirements are necessary.

- Motor can be mounted in any position
- In run-away conditions you must use counterbalance valves
- Consult factory for intermittent applications

Splined adaptors (sleeves) are available upon request.

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### Installation circuit

The choice of open or closed loop circuit will be determined by the application.

Open loop circuits are cheaper and simpler to install. Closed loop circuit is a superior circuit and usually takes up less space. It also offers better control features.

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### Start up

Motor case and pistons must be completely filled with oil before starting. Do not load motor to maximum working pressure instantly. During cold start-up avoid high-speed operation until the system reach the working temperature.

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### Case Drain – Case Pressure

Connect the case drain directly to tank.

The case drain port on the motor must be located on the highest point of the installation to ensure that the motor will always be full of oil. The case drain pressure must not exceed 6 bar continuous pressure. (See drain recommendations page for more details)

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### Important

When the motor is installed vertically with shaft pointing upwards, consult our Technical Department. If the motor is connected to high inertial loads, the hydraulic system must be designed to prevent peaks of pressure and cavitation.

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### Temperature

Maximum oil temperature must not exceed 70°C (Please refer to hydraulic fluid recommendations). Heat exchangers must be used with higher temperatures.

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### Viscosity

The motor works satisfactory in a range of 3°E to 10°E oil viscosity. Best performance is obtained at the highest viscosity. (Please refer to hydraulic fluid recommendations)

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### Back Pressure

Don't exceed 70 bar back pressure.

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### Minimum speed

Standard minimum speed is about 3 rpm (depending on motor displacement). In case of a little bit of back pressure the minimum speed might be reduced. If you need less speed please contact our technical department.

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### Flushing

The operating fluid viscosity must always be higher than a certain minimum value (see "fluid recommendation" section) in order to guarantee an optimal motor internal lubrication. When the working conditions cause the motor case overheating above a critical value, the motor flushing is required. Flushing consists in the introduction of fresh oil (taken from the hydraulic circuit) into the motor case. Oil must be taken from the return line to avoid internal motor damage (the continuous motor case pressure must be maximum 6 bar). Flushing is an important operation that can be very effective to improve motor lifetime with heavy duty working conditions and improve the motor mechanical efficiency.

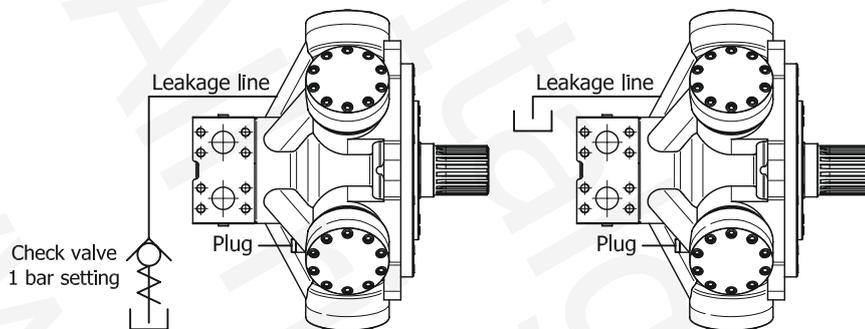
The motor flushing, if the motor works in one direction only, can be easily performed connecting the motor return line to the lowest motor drain port. The highest motor drain port must be connected to the tank. For D75 and D90 flow distributors, the side 1/4" metallic plugs can be used for flushing circuit installation: infact the plug (corresponding to the return line port) can be removed and the connection between motor low pressure port and motor case can be correctly realized.

If the motor axis is not horizontal and/or the motor works in bidirectional operation, please contact Italgroup technical department, that can assist you to advice how to perform the desired operation in the best way. Just for your reference, Italgroup can provide you flushing valves in order to perform an effective flushing circuit.

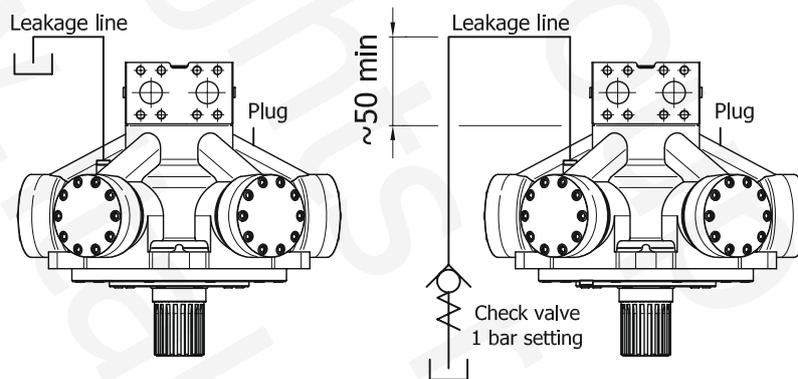
**For more details on the above mentioned arguments and for any further information please contact our technical department.**

## DRAIN RECOMMENDATIONS

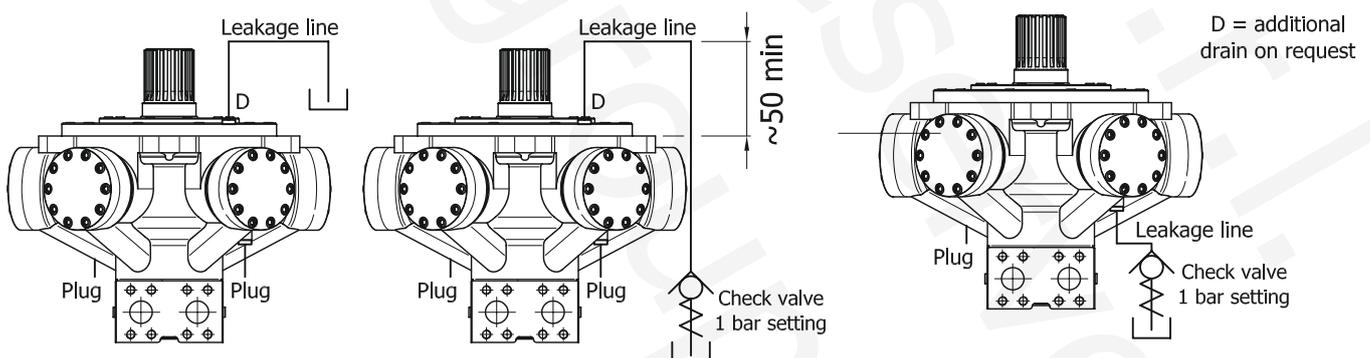
### Motor axis horizontal



### Axis vertical, shaft down



### Axis vertical, shaft up



### LEAKAGE LINE CONNECTION

Always fill the motor with hydraulic fluid before start-up. Arrange piping in a way that the motor cannot drain off and cannot generate air bubbles into the motor case.

Under certain conditions it may be necessary to arrange a check valve in order to help avoid the motor draining off.

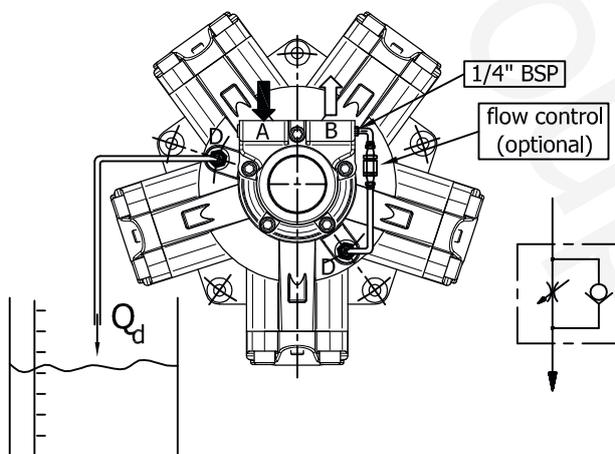
Always check carefully that the leakage line pressure doesn't overcome 6 bar pressure: therefore leakage lines must be shorter as possible and with a minimum flow resistance.

## FLUSHING FLOW

MOTOR	FLUSHING FLOW [l/min]
IAMD 400, 450, 500 H3	8
IAMD 700, 800, 1000 H4	10
IAMD 1400, 1600, 1800 H5	15
IAMD 2200, 2500, 3000, 3500 H6	20
IAMD 4300, 4600, 5000, 5400 H7	
IAMD 6000, 6500, 6800, 7600, 8000 H8	

Important note: the above values are approximated. The correct way to operate is the following: the flushing flow is adequate if during the motor working the drain oil viscosity be at least 44 cSt, preferably in the range from 50 to 80 cSt.

## FLUSHING FLOW MEASUREMENT METHOD



- connect the tank drain pipe to a graduate plastic measuring container
- measure the volume quantity of oil that flows into the container in one minute
- the measured oil volume quantity is the flushing flow,  $Q$

max case  
pressure: 6 bar

A - high pressure port (inlet)  
 B - low pressure port (outlet)  
 D - drain ports

Bearings lifetime depends on the type of bearing, on motor speed and on working loads. Lifetime is measured by  $L_{10}$  which is called "theoretic lifetime". It represents the number of cycles that 90% of identical bearings can effort at the same load without showing wear and tear. It is calculated by the following equation:

$$L_{10} = \left( \frac{C}{P} \right)^p$$

where: C = theoretical dynamic coefficient (depending on the bearing size)

P=radial load

p=exponent (p=3 for ball bearings, p=10/3 for roller bearings)

When you work at constant speed, you can calculate the lifetime in hours with the following equation:

$$L_{10h} = \frac{10^6 \cdot L_{10}}{60 \cdot \text{rpm}} = \frac{10^6}{60 \cdot \text{rpm}} \left( \frac{C}{P} \right)^p \text{ [h]}$$

When you don't have only radial or axial loads, you have to calculate an equivalent load:

$$P = X \cdot F_R + Y \cdot F_A$$

Where  $F_R$  = radial load,  
X = radial coefficient,  
 $F_A$  = axial load,  
Y = axial coefficient

While  $F_R$  and  $F_A$  come from working conditions (i.e. torque), X and Y depend on the type of bearing and on the ratio  $F_A/F_R$ .

To help you in the expected lifetime calculation, ItalgrouP provides you with an EXCEL calculation sheet. With this instrument you can easily calculate lifetime: you only need to choose the motor model, put speed, pressure and loads.

**For further information or to have the calculation sheet, please contact our Technical Department.**

Type: BABSL

Form: AS DIN 3760

Material: SIMRIT® 72 NBR 902

SIMRIT® 75 FKM 595

### 1. Features

SIMMERRING® radial shaft seal with rubber covered O.D., short, flexibility suspended, spring loaded sealing lip and additional dust lip: see Part B/SIMMERRING®, sections 1.1 and 2.

### 2. Material

Sealing lip and O.D.:

- Acrylonitrile-butadiene rubber with 72 Shore A hardness (designation: SIMRIT® 72 NBR 902)
- Fluoro rubber with 75 Shore A hardness (designation: SIMRIT® 75 FKM 595)

Metal insert:

- Plain steel DIN 1624

Spring:

- Spring steel DIN 17223

### 3. Application

For sealing pressurised media without additional backup ring, e. g. for rotational pressure sealing in hydraulic pumps, hydraulic motors, hydrodynamic clutches. Rubber covered O.D. assures sealing in the housing bore even in case of considerable surface roughness, thermal expansion or split housing.

Particularly suitable for sealing low viscosity and gaseous media.

Where high thermal stability and chemical resistance are required, SIMRIT® 75 FKM 595 material should be used.

Additional dust lip to avoid the entry of light and medium dust and dirt.

### 4. Operating conditions

See Part B/ SIMMERRING®, sections 2. 4.

Media: mineral oils, synthetic oils

Temperature: -40°C to +100°C (SIMRIT® 72 NBR 902)

-40°C to +160°C (SIMRIT® 75 FKM 595)

Surface speed: up to 5 m/s

Working pressure: see diagram 1

Maximum permitted values, depending on other operating conditions.

**5. Housing and Machining Criteria**

See Par B/ SIMMERRING®, sections 2.

Shaft:	Tolerance:	ISO h11
	Concentricity:	IT 8
	Roughness:	Ra=0.2-0.8 µm Rz=1-4 µm Rmax=6 µm
	Hardness:	45-60 HRC
	Roughness:	non oriented; preferably by plunge grinding
Housing:	Tolerance:	ISO H8
	Roughness:	Rmax<25 µm

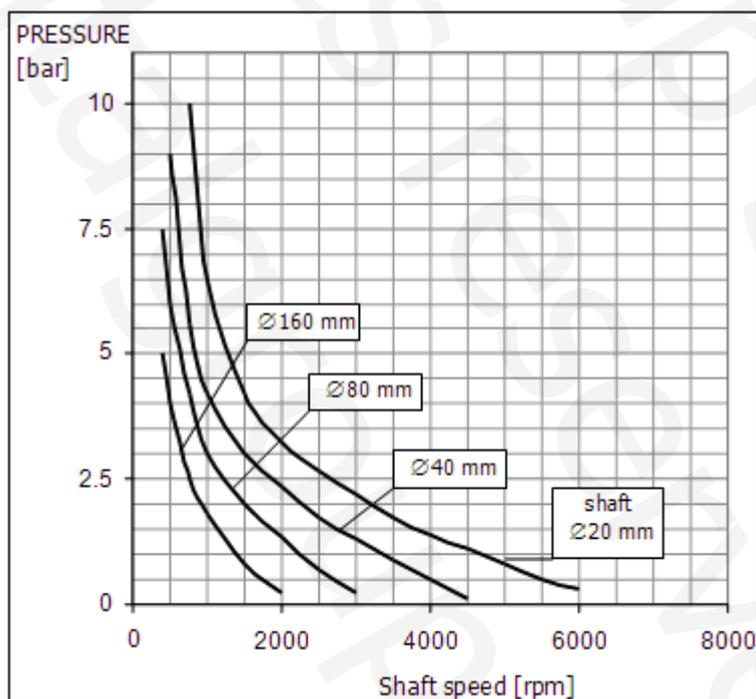
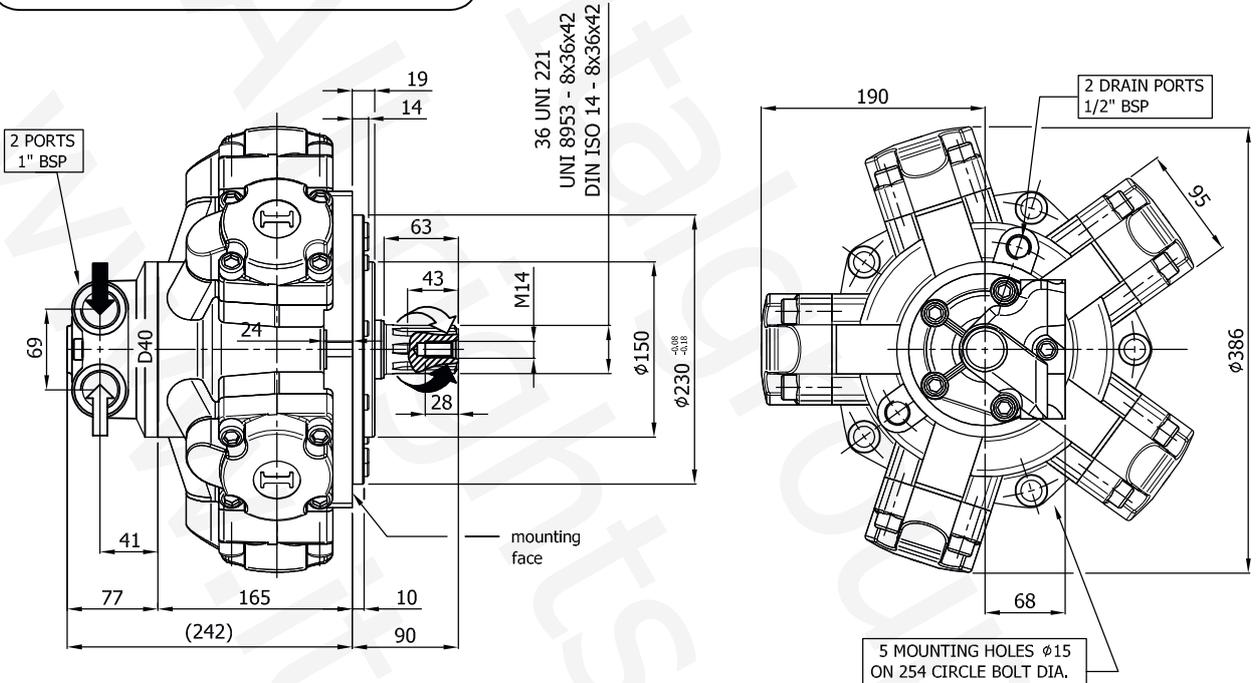


Diagram 1: Pressure Loading Limits

**INSTALLATION DRAWING**



**TECHNICAL DATA**

		400	450	500
DISPLACEMENT	[cc]	397	452	491
SPECIFIC TORQUE	[Nm/bar]	6.3	7.2	7.8
MAX. CONT. PRESSURE	[bar]	270	270	270
MAX. INT. PRESSURE	[bar]	320	320	320
PEAK PRESSURE	[bar]	350	350	350
MAX. CONT. SPEED	[rpm]	750	750	750
PEAK SPEED (**)	[rpm]	860	760	690
MAX. CONT. POWER (***)	[kW]	80	80	80
MAX. POWER (****)	[kW]	120	120	120
MAX. CASE PRESSURE	[bar]	6	6	6
MAX. BACK PRESSURE	[bar]	70	70	70
DRY WEIGHT	[kg]	68	68	68
TEMPERATURE RANGE (*)	[°C]	-30÷70	-30÷70	-30÷70

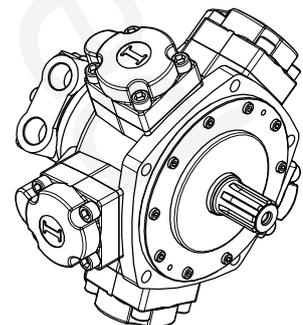
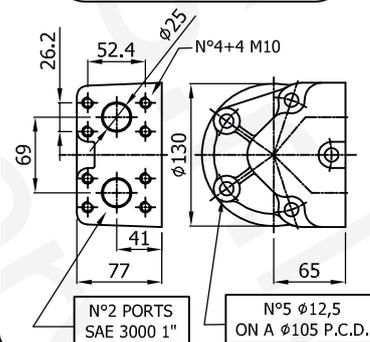
(\*) Please refer to the "Hydraulic fluid recommendations"

(\*\*) Do not exceed maximum power

(\*\*\*) At maximum continuous power the motor flushing is required

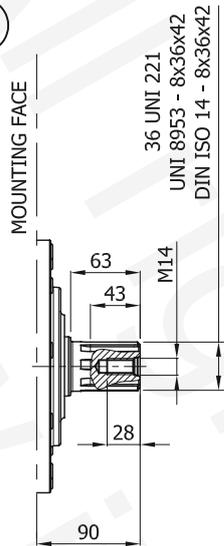
(\*\*\*\*) Permitted on a 15% duty cycle, for a maximum 5 min period

**OPTION: D47**



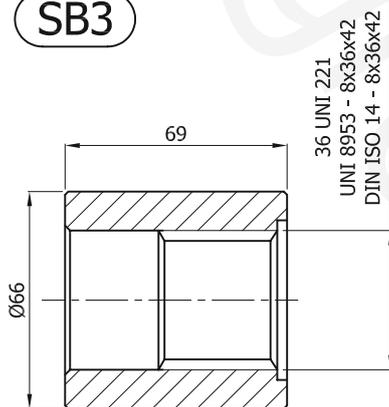
SHAFT CONFIGURATIONS

A0



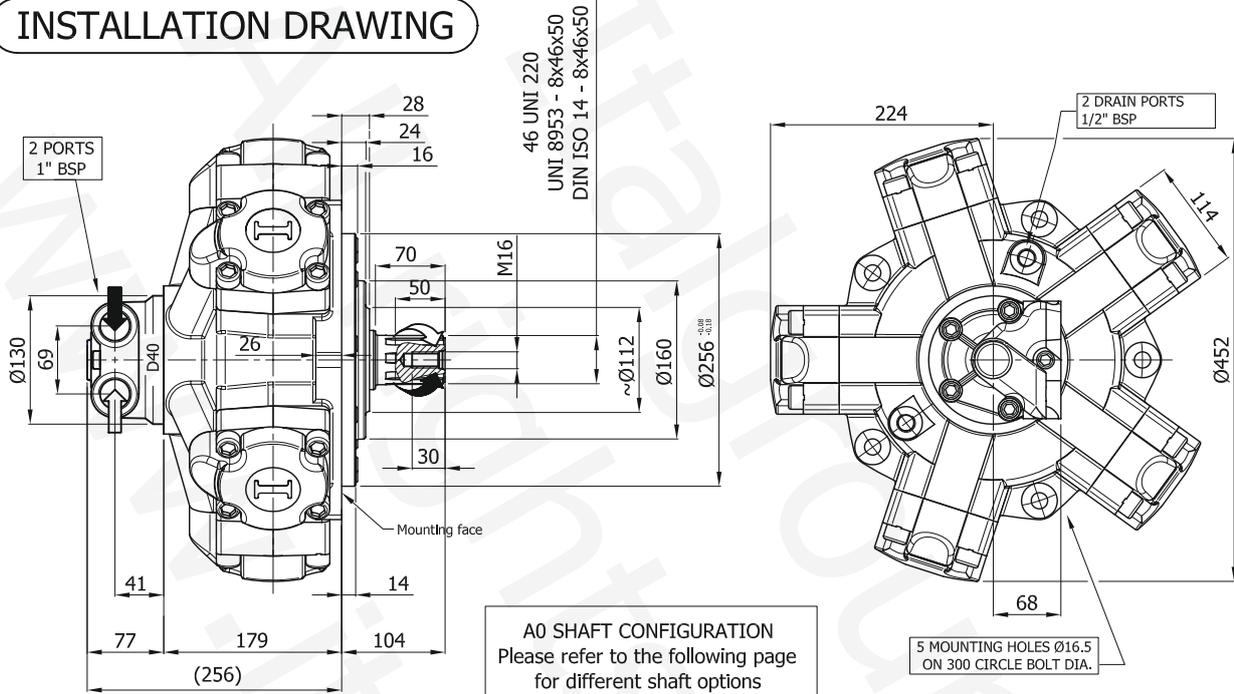
SPLINE BILLETS

SB3



for IAMD H3 A0

**INSTALLATION DRAWING**



**TECHNICAL DATA**

		700	800	1000
DISPLACEMENT	[cc]	714	792	992
SPECIFIC TORQUE	[Nm/bar]	11.4	12.6	15.8
MAX. CONT. PRESSURE	[bar]	270	270	270
MAX. INT. PRESSURE	[bar]	320	320	320
PEAK PRESSURE	[bar]	350	350	350
MAX. CONT. SPEED	[rpm]	500	450	355
PEAK SPEED (**)	[rpm]	580	520	405
MAX. CONT. POWER (***)	[kW]	120	120	120
MAX. POWER (****)	[kW]	150	150	150
MAX. CASE PRESSURE	[bar]	6	6	6
MAX. BACK PRESSURE	[bar]	70	70	70
DRY WEIGHT	[kg]	92	92	92
TEMPERATURE RANGE (*)	[°C]	-30÷70	-30÷70	-30÷70

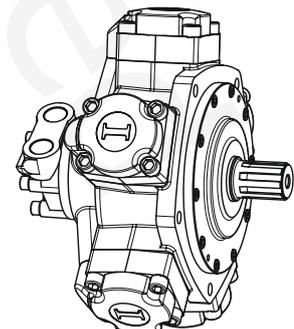
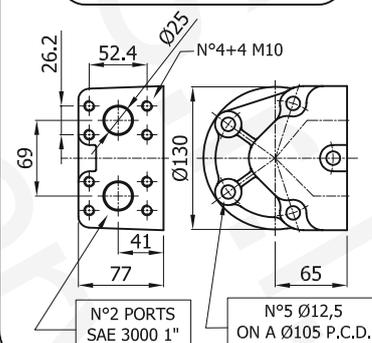
(\*) Please refer to the "Hydraulic fluid recommendations"

(\*\*) Do not exceed maximum power

(\*\*\*) At maximum continuous power the motor flushing is required

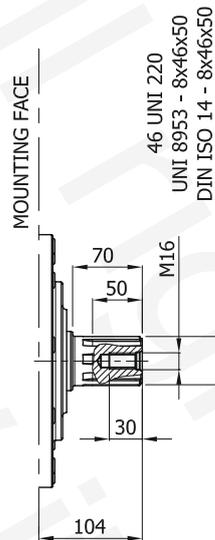
(\*\*\*\*) Permitted on a 15% duty cycle, for a maximum 5 min period

**OPTION: D47**

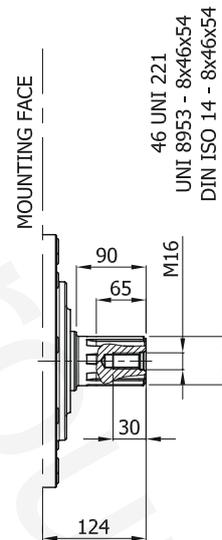


SHAFT CONFIGURATIONS

A0

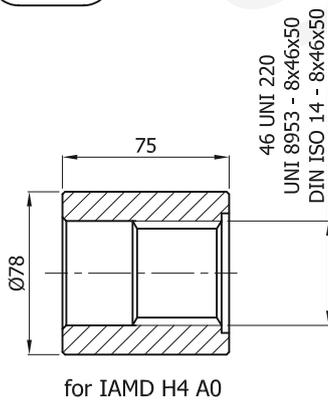


A1

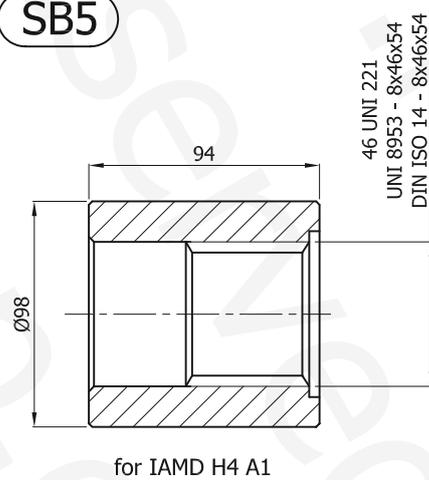


SPLINE BILLETS

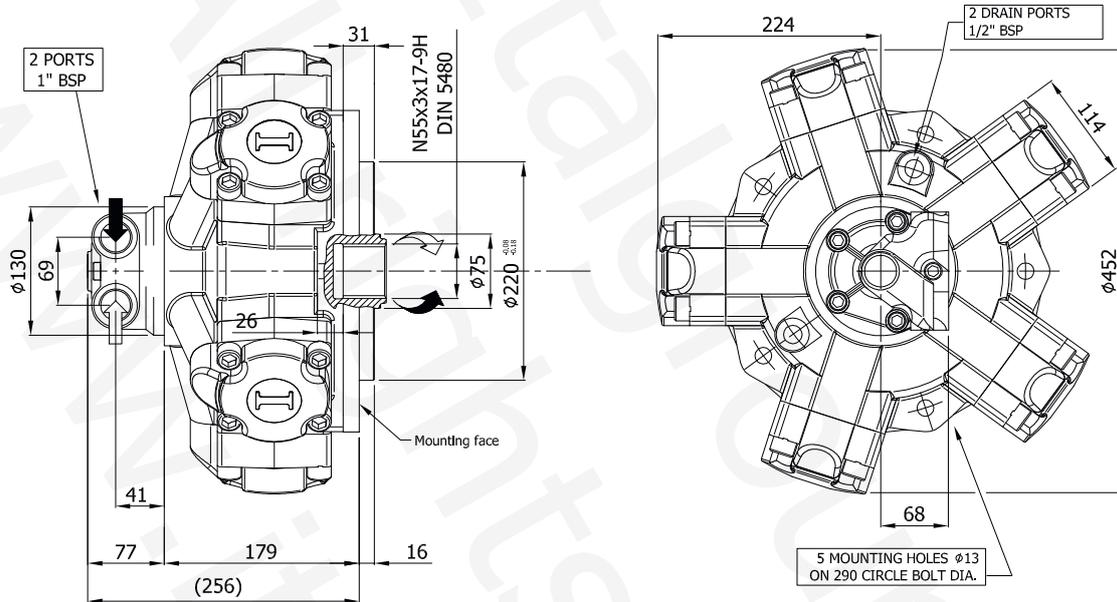
SB4



SB5



**INSTALLATION DRAWING**



**TECHNICAL DATA**

		700	800
DISPLACEMENT	[cc]	714	792
SPECIFIC TORQUE	[Nm/bar]	11.4	12.6
MAX. CONT. PRESSURE	[bar]	270	270
MAX. INT. PRESSURE	[bar]	320	320
PEAK PRESSURE	[bar]	350	350
MAX. CONT. SPEED	[rpm]	500	450
PEAK SPEED (**)	[rpm]	580	520
MAX. CONT. POWER (***)	[kW]	120	120
MAX. POWER (****)	[kW]	150	150
MAX. CASE PRESSURE	[bar]	6	6
MAX. BACK PRESSURE	[bar]	70	70
DRY WEIGHT	[kg]	92	92
TEMPERATURE RANGE (*)	[°C]	-30÷70	-30÷70

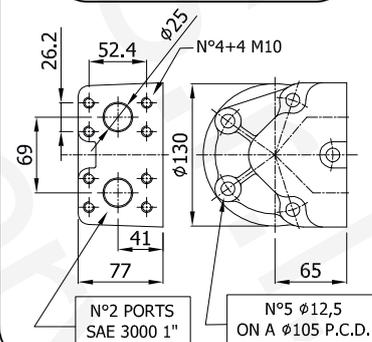
(\*) Please refer to the "Hydraulic fluid recommendations"

(\*\*) Do not exceed maximum power

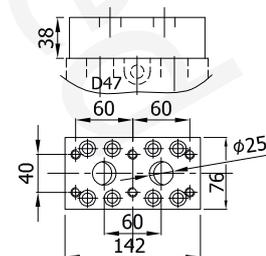
(\*\*\*) At maximum continuous power the motor flushing is required

(\*\*\*\*) Permitted on a 15% duty cycle, for a maximum 5 min period

**OPTION: D47**

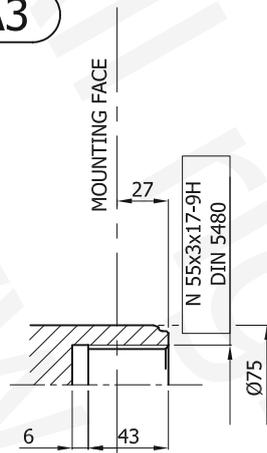


**OPTION: FL2**



SHAFT CONFIGURATIONS

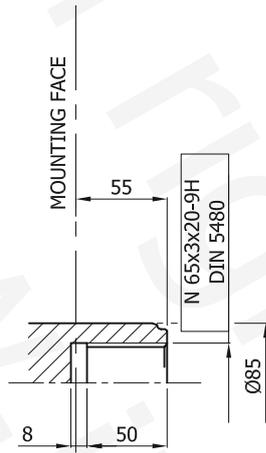
A3



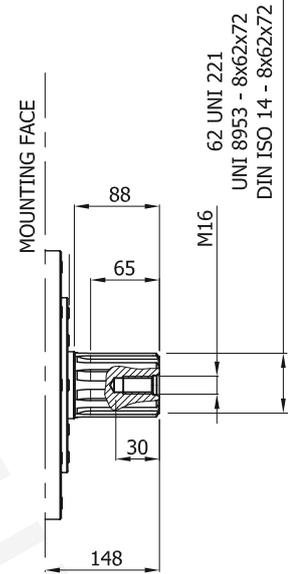


SHAFT CONFIGURATIONS

A31

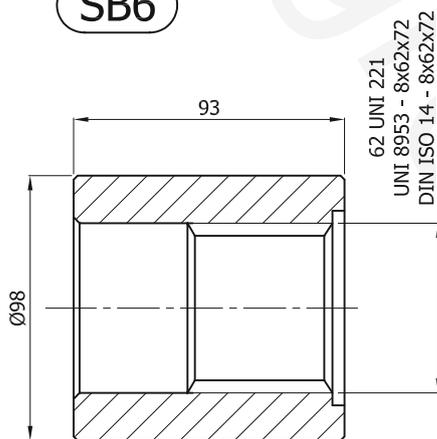


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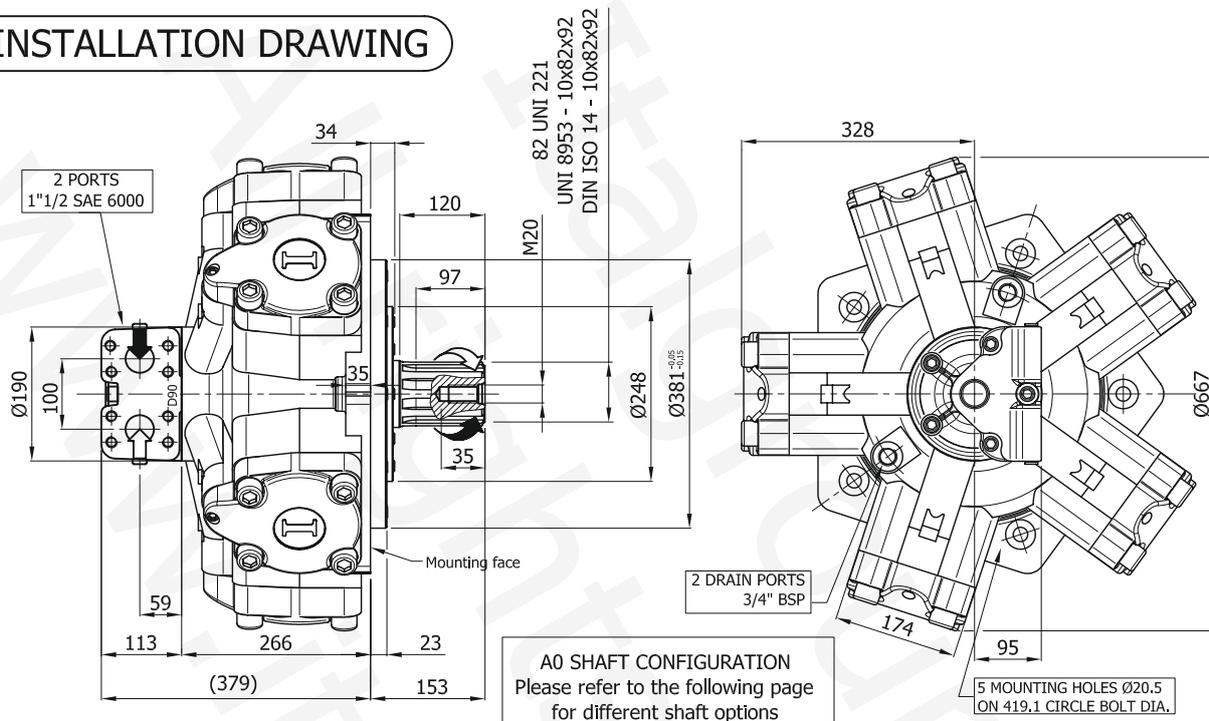
SPLINE BILLETS

SB6



for IAMD H5 A0

### INSTALLATION DRAWING



### TECHNICAL DATA

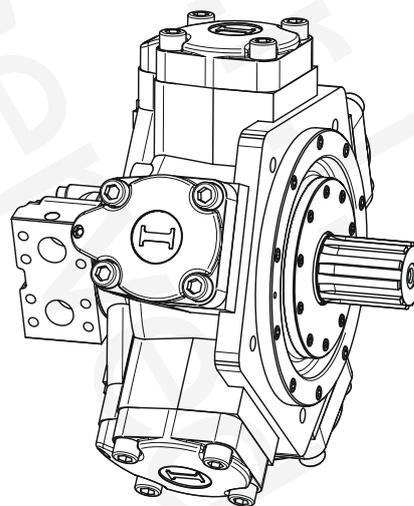
		2200	2500	3000	3500
DISPLACEMENT	[cc]	2126	2525	2983	3479
SPECIFIC TORQUE	[Nm/bar]	35.1	40.2	47.5	55.4
MAX. CONT. PRESSURE	[bar]	270	270	270	270
MAX. INT. PRESSURE	[bar]	320	320	320	320
PEAK PRESSURE	[bar]	350	350	350	350
MAX. CONT. SPEED	[rpm]	325	285	235	210
PEAK SPEED (**)	[rpm]	375	325	270	240
MAX. CONT. POWER (***)	[kW]	210	210	210	210
MAX. POWER (****)	[kW]	235	235	235	235
MAX. CASE PRESSURE	[bar]	6	6	6	6
MAX. BACK PRESSURE	[bar]	70	70	70	70
DRY WEIGHT	[kg]	308	308	308	308
TEMPERATURE RANGE (*)	[°C]	-30÷70	-30÷70	-30÷70	-30÷70

(\*) Please refer to the "Hydraulic fluid recommendations"

(\*\*) Do not exceed maximum power

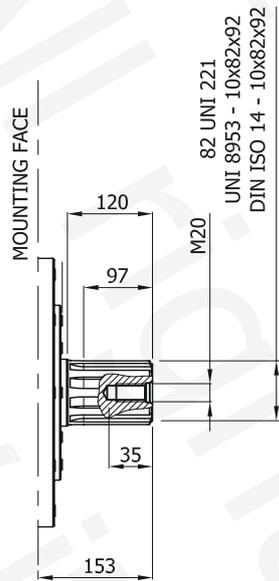
(\*\*\*) At maximum continuous power the motor flushing is required

(\*\*\*\*) Permitted on a 15% duty cycle, for a maximum 5 min period

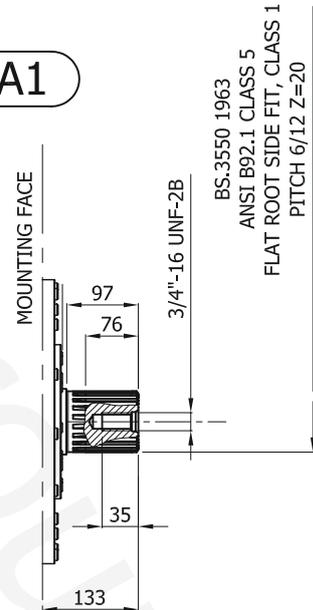


SHAFT CONFIGURATIONS

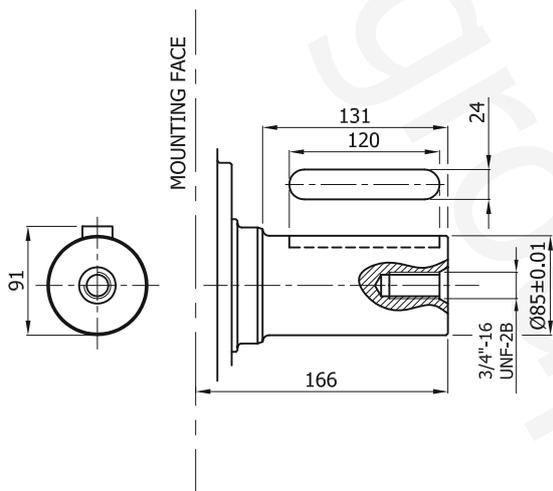
A0



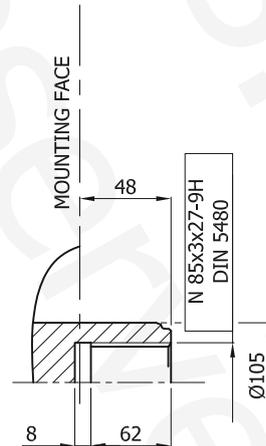
A1



A2

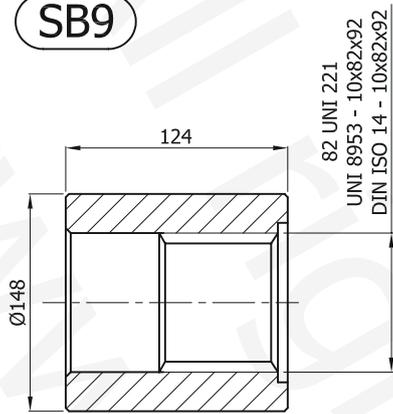


A3



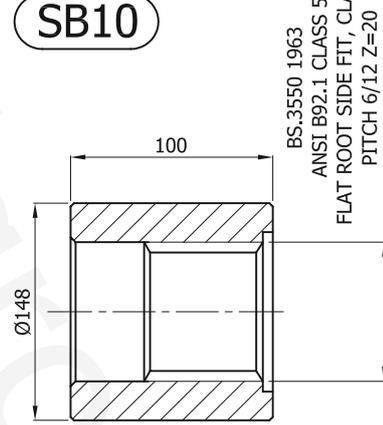
SPLINE BILLETS

SB9



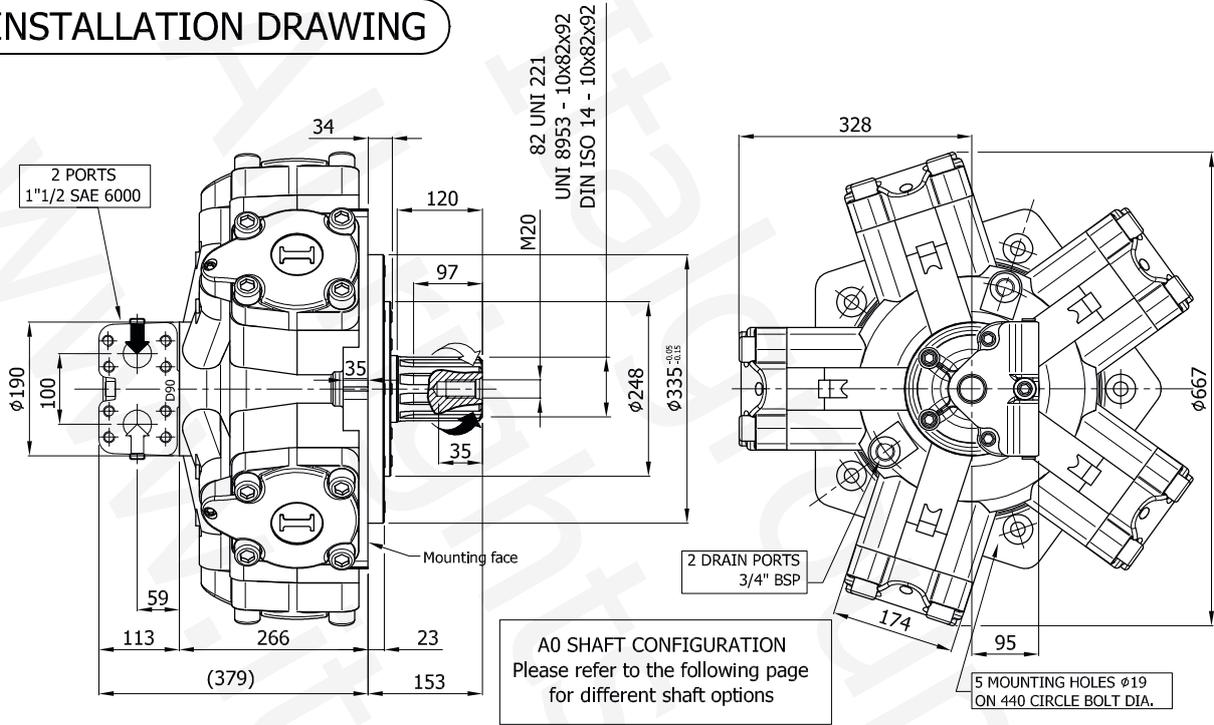
for IAMD H6 A0

SB10



for IAMD H6 A1

**INSTALLATION DRAWING**



**TECHNICAL DATA**

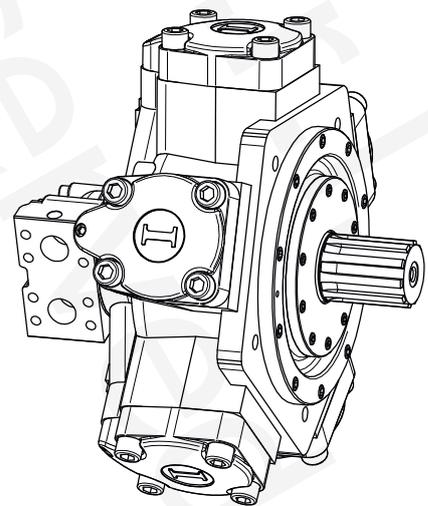
	2200	2500	3000	3500
DISPLACEMENT [cc]	2126	2525	2983	3479
SPECIFIC TORQUE [Nm/bar]	35.1	40.2	47.5	55.4
MAX. CONT. PRESSURE [bar]	270	270	270	270
MAX. INT. PRESSURE [bar]	320	320	320	320
PEAK PRESSURE [bar]	350	350	350	350
MAX. CONT. SPEED [rpm]	325	285	235	210
PEAK SPEED (**) [rpm]	375	325	270	240
MAX. CONT. POWER (***) [kW]	210	210	210	210
MAX. POWER (****) [kW]	235	235	235	235
MAX. CASE PRESSURE [bar]	6	6	6	6
MAX. BACK PRESSURE [bar]	70	70	70	70
DRY WEIGHT [kg]	308	308	308	308
TEMPERATURE RANGE (*) [°C]	-30÷70	-30÷70	-30÷70	-30÷70

(\*) Please refer to the "Hydraulic fluid recommendations"

(\*\*) Do not exceed maximum power

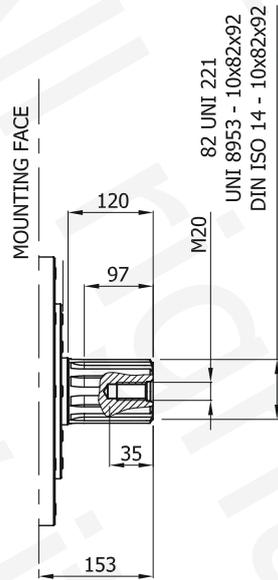
(\*\*\*) At maximum continuous power the motor flushing is required

(\*\*\*\*) Permitted on a 15% duty cycle, for a maximum 5 min period

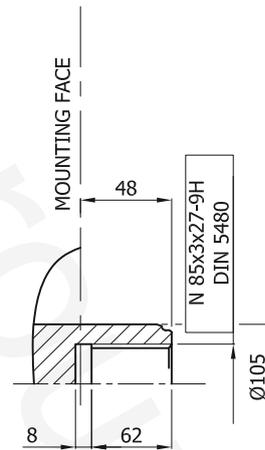


SHAFT CONFIGURATIONS

A0

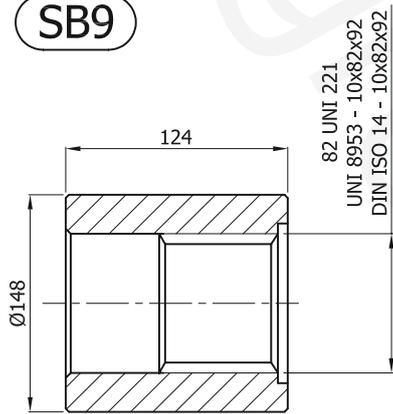


A3

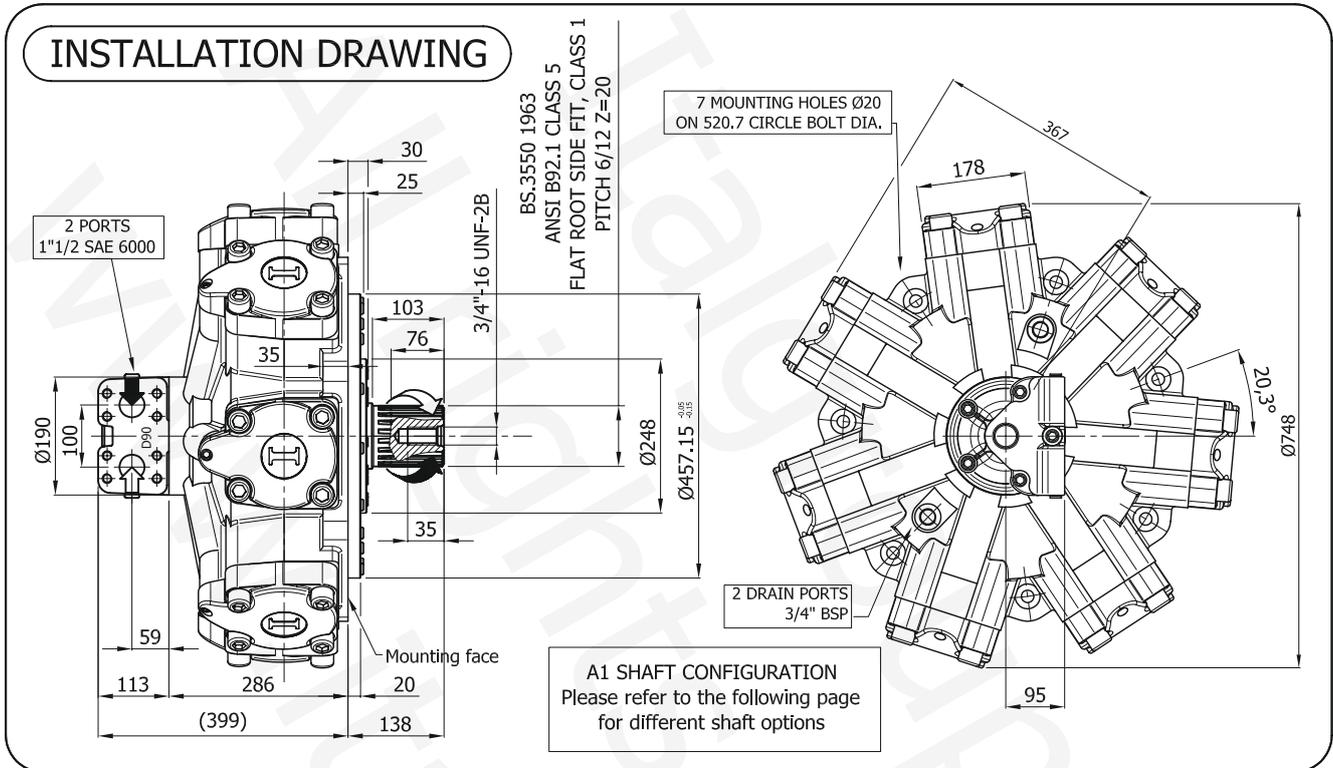


SPLINE BILLETS

SB9



for IAMD H6/C A0



### TECHNICAL DATA

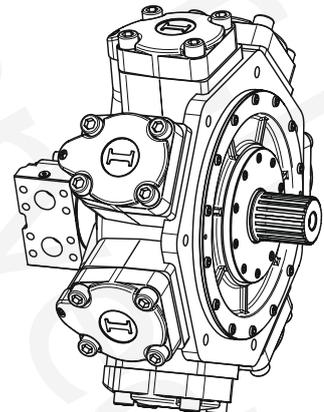
	3900	4300	4600	5000	5400
DISPLACEMENT [cc]	3907	4343	4616	5088	5384
SPECIFIC TORQUE [Nm/bar]	62.2	69.1	73.5	81	85.7
MAX. CONT. PRESSURE [bar]	270	270	270	270	270
MAX. INT. PRESSURE [bar]	320	320	320	320	320
PEAK PRESSURE [bar]	350	350	350	350	350
MAX. CONT. SPEED [rpm]	175	160	150	140	130
PEAK SPEED (**) [rpm]	200	185	170	160	150
MAX. CONT. POWER (***) [kW]	230	230	230	230	230
MAX. POWER (****) [kW]	258	258	258	258	258
MAX. CASE PRESSURE [bar]	6	6	6	6	6
MAX. BACK PRESSURE [bar]	70	70	70	70	70
DRY WEIGHT [kg]	405	405	405	405	405
TEMPERATURE RANGE (*) [°C]	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70

(\*) Please refer to the "Hydraulic fluid recommendations"

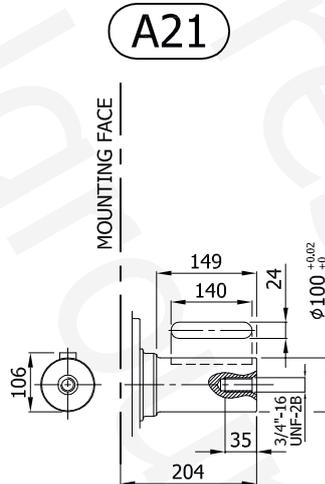
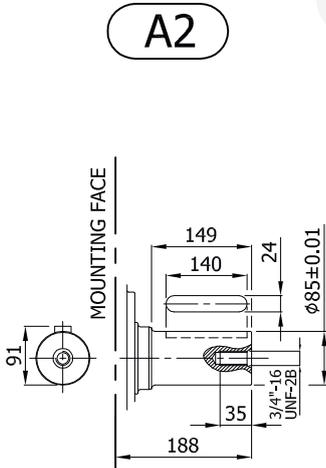
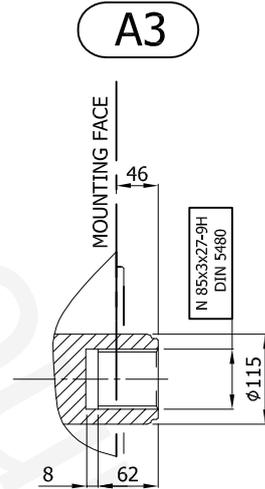
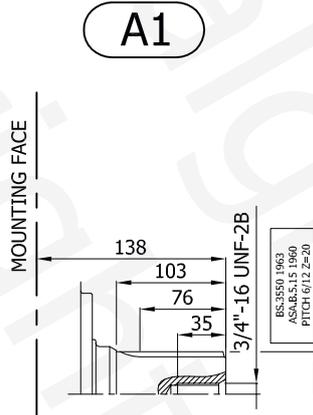
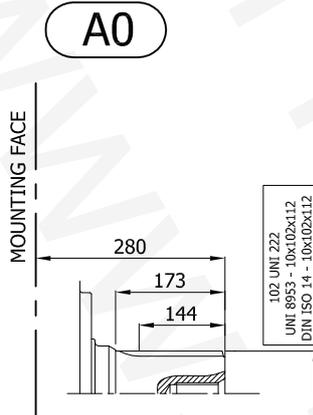
(\*\*) Do not exceed maximum power

(\*\*\*) At maximum continuous power the motor flushing is required

(\*\*\*\*) Permitted on a 15% duty cycle, for a maximum 5 min period

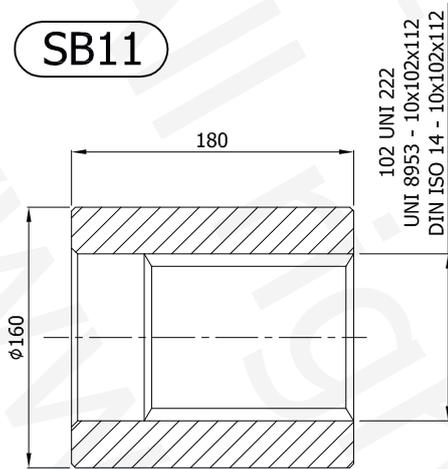


SHAFT CONFIGURATIONS



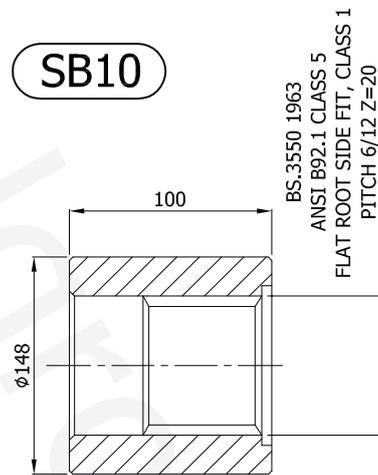
SPLINE BILLETS

SB11

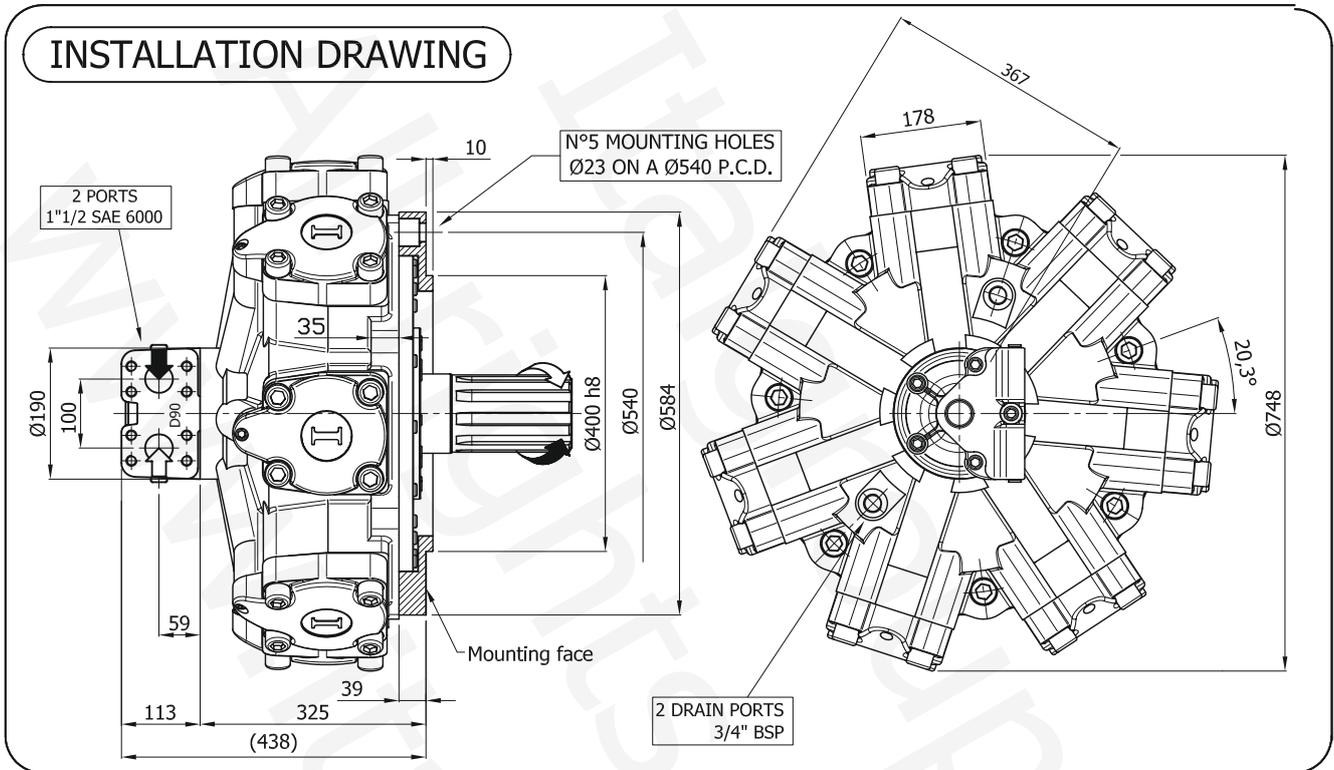


for IAMD H7 A0

SB10



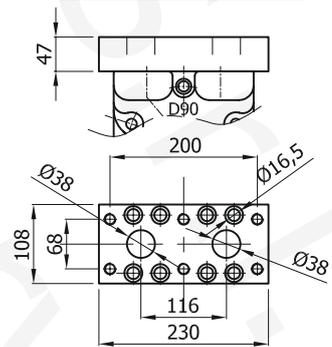
for IAMD H7 A1



**TECHNICAL DATA**

		3900	4300	4600	5000	5400
DISPLACEMENT	[cc]	3907	4343	4616	5088	5384
SPECIFIC TORQUE	[Nm/bar]	62.2	69.1	73.5	81	85.7
MAX. CONT. PRESSURE	[bar]	270	270	270	270	270
MAX. INT. PRESSURE	[bar]	320	320	320	320	320
PEAK PRESSURE	[bar]	350	350	350	350	350
MAX. CONT. SPEED	[rpm]	175	160	150	140	130
PEAK SPEED (**)	[rpm]	200	185	170	160	150
MAX. CONT. POWER (***)	[kW]	230	230	230	230	230
MAX. POWER (****)	[kW]	258	258	258	258	258
MAX. CASE PRESSURE	[bar]	6	6	6	6	6
MAX. BACK PRESSURE	[bar]	70	70	70	70	70
DRY WEIGHT	[kg]	405	405	405	405	405
TEMPERATURE RANGE (*)	[°C]	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70

**OPTION: FL8**



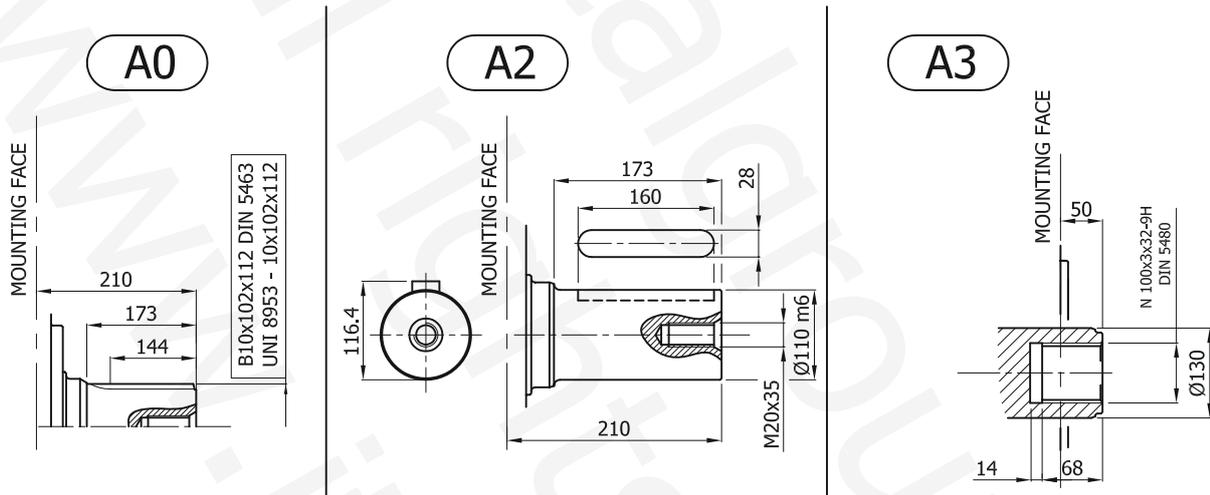
(\*) Please refer to the "Hydraulic fluid recommendations"

(\*\*) Do not exceed maximum power

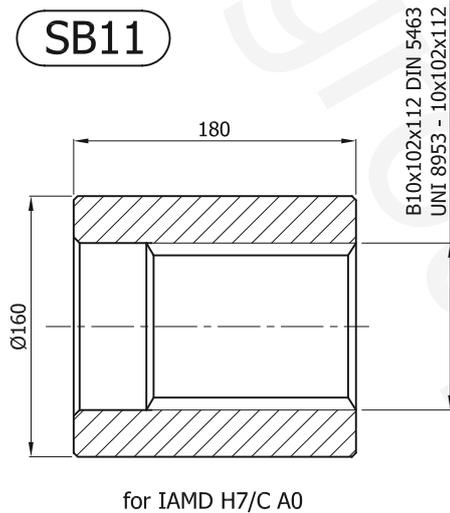
(\*\*\*) At maximum continuous power the motor flushing is required

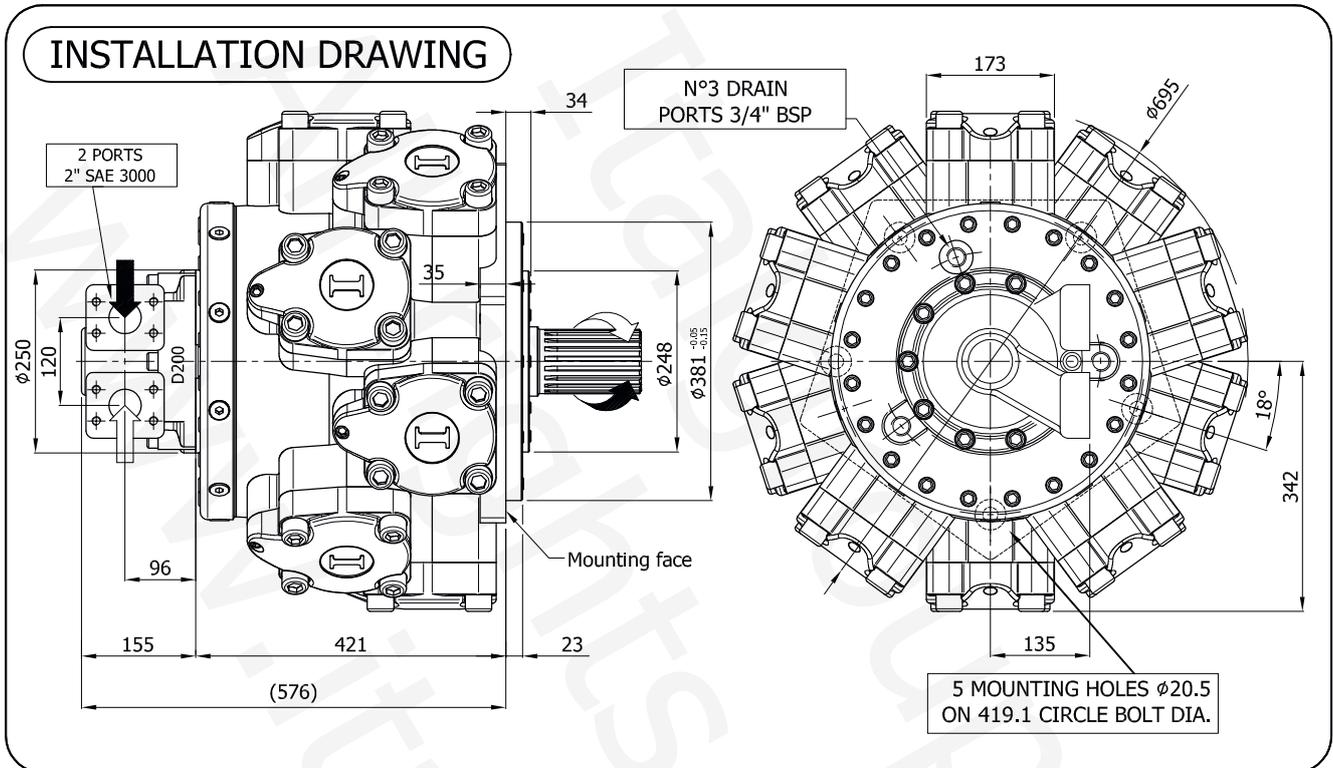
(\*\*\*\*) Permitted on a 15% duty cycle, for a maximum 5 min period

SHAFT CONFIGURATIONS



SPLINE BILLETS





**TECHNICAL DATA**

	6000	6500	6800	7600	8000
DISPLACEMENT [cc]	5966	6581	6962	7620	8062
SPECIFIC TORQUE [Nm/bar]	95	104.7	110.8	121.3	128.3
MAX. CONT. PRESSURE [bar]	250	250	250	190	180
MAX. INT. PRESSURE [bar]	290	290	290	230	220
PEAK PRESSURE [bar]	350	350	350	290	280
MAX. CONT. SPEED [rpm]	120	120	120	90	80
PEAK SPEED (**) [rpm]	140	140	140	100	90
MAX. CONT. POWER (***) [kW]	190	190	190	190	190
MAX. POWER (****) [kW]	215	215	215	215	215
MAX. CASE PRESSURE [bar]	6	6	6	6	6
MAX. BACK PRESSURE [bar]	70	70	70	70	70
DRY WEIGHT [kg]	590	590	590	590	590
TEMPERATURE RANGE (*) [°C]	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70

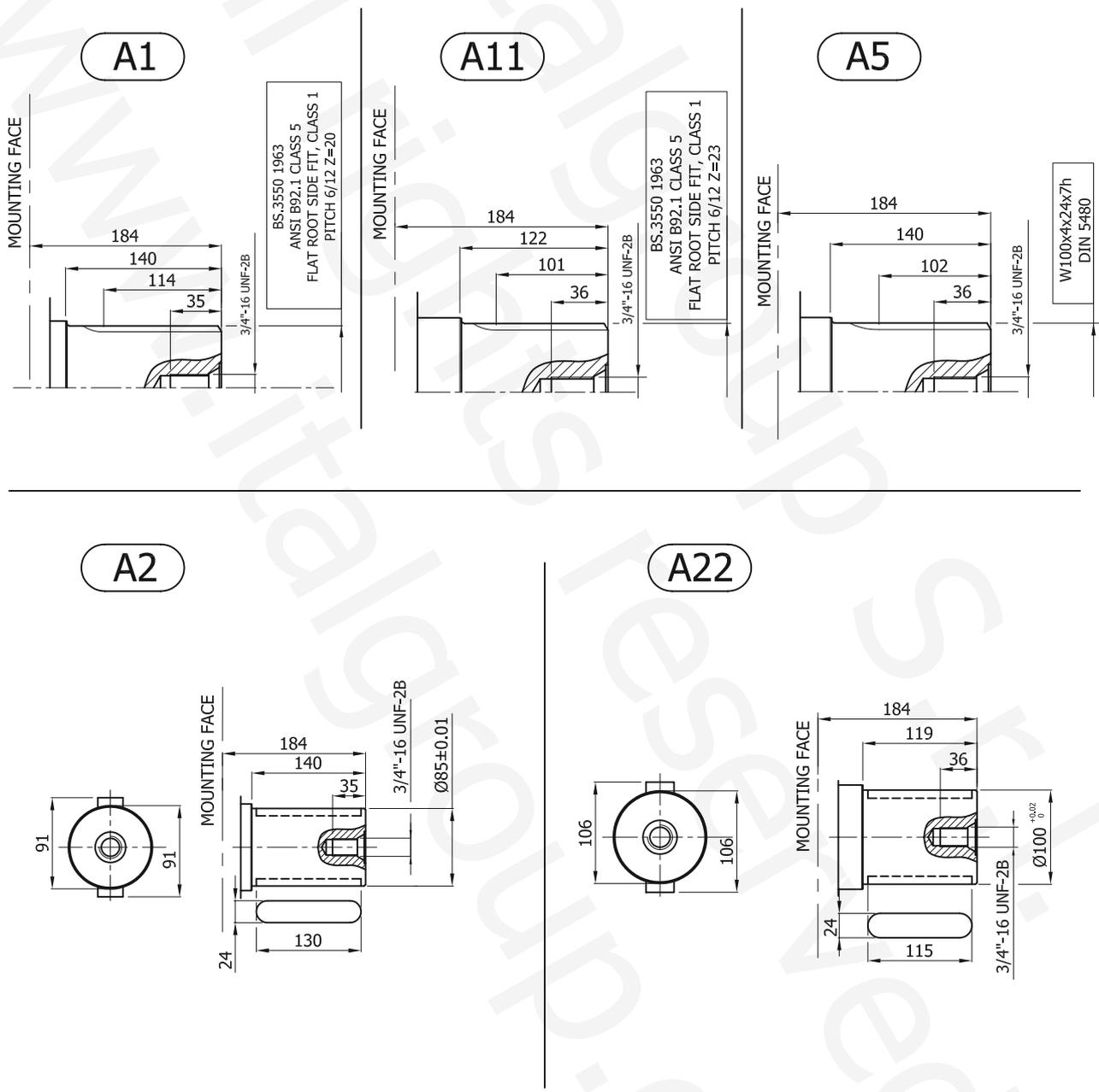
(\*) Please refer to the "Hydraulic fluid recommendations"

(\*\*) Do not exceed maximum power

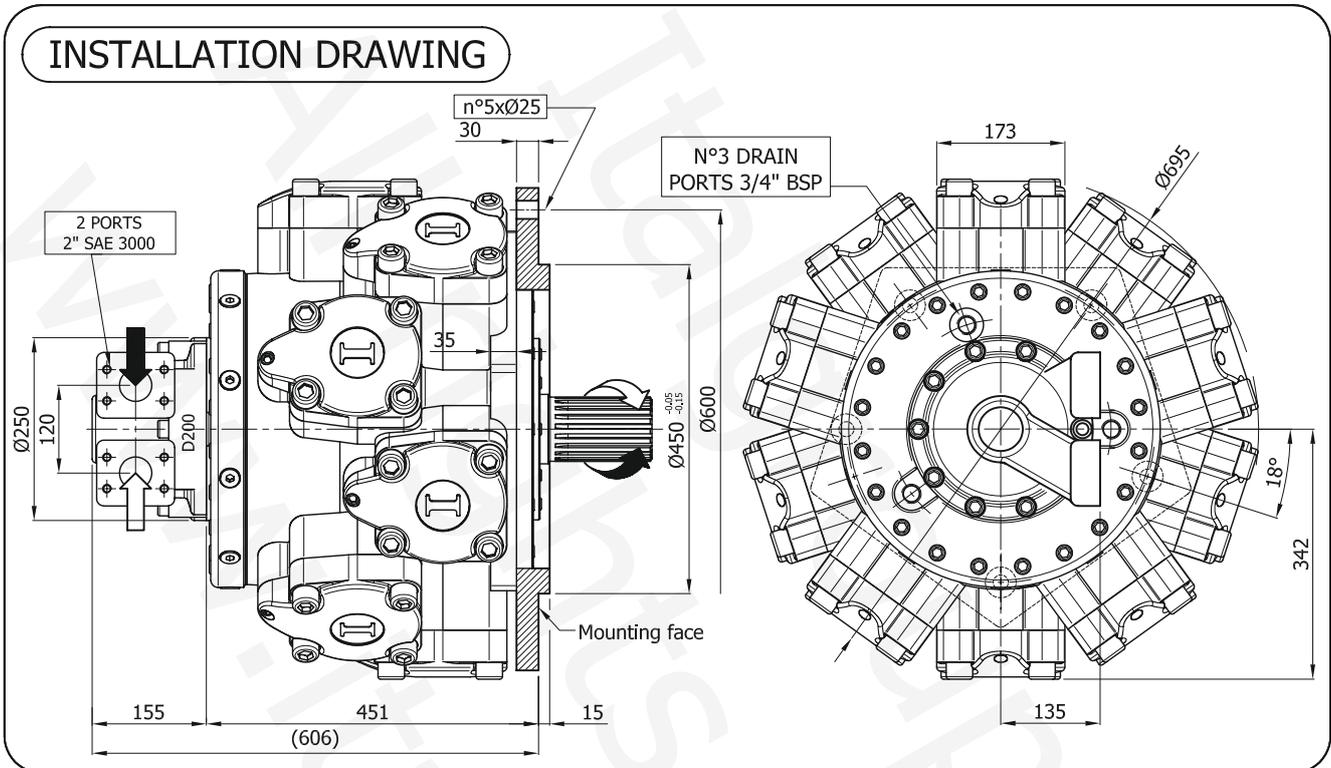
(\*\*\*) At maximum continuous power the motor flushing is required

(\*\*\*\*) Permitted on a 15% duty cycle, for a maximum 5 min period

SHAFT CONFIGURATIONS



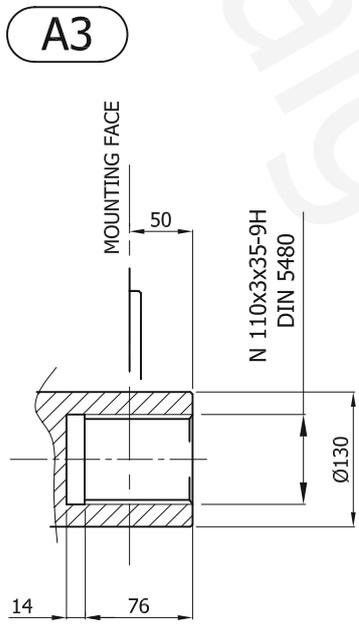
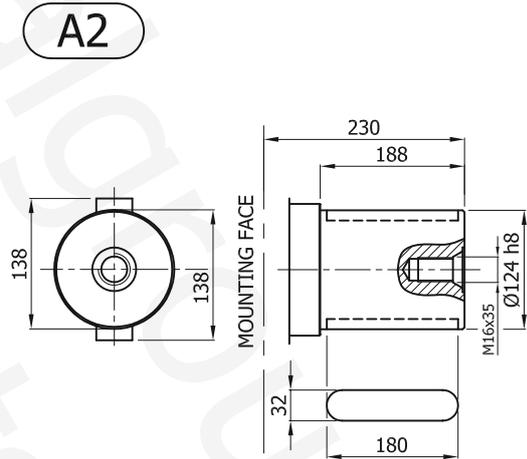
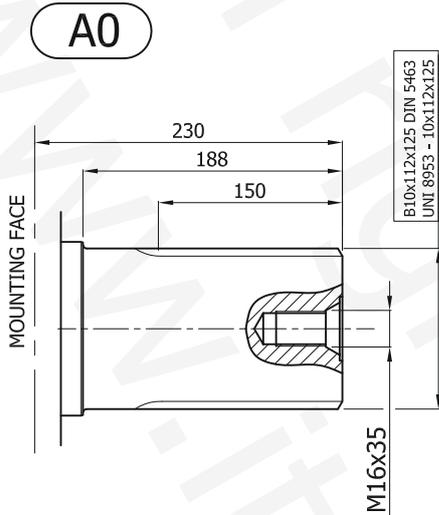
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TECHNICAL DATA		6000	6500	6800	7600	8000
DISPLACEMENT	[cc]	5966	6581	6962	7620	8062
SPECIFIC TORQUE	[Nm/bar]	95	104.7	110.8	121.3	128.3
MAX. CONT. PRESSURE	[bar]	250	250	250	190	180
MAX. INT. PRESSURE	[bar]	290	290	290	230	220
PEAK PRESSURE	[bar]	350	350	350	290	280
MAX. CONT. SPEED	[rpm]	120	120	120	90	80
PEAK SPEED (**)	[rpm]	140	140	140	100	90
MAX. CONT. POWER (***)	[kW]	190	190	190	190	190
MAX. POWER (****)	[kW]	215	215	215	215	215
MAX. CASE PRESSURE	[bar]	6	6	6	6	6
MAX. BACK PRESSURE	[bar]	70	70	70	70	70
DRY WEIGHT	[kg]	590	590	590	590	590
TEMPERATURE RANGE (*)	[°C]	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70

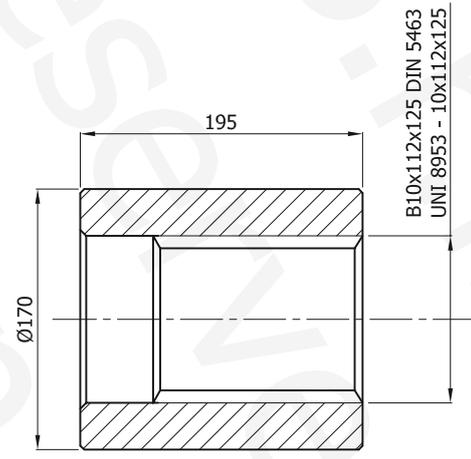
(\*) Please refer to the "Hydraulic fluid recommendations"  
 (\*\*) Do not exceed maximum power  
 (\*\*\*) At maximum continuous power the motor flushing is required  
 (\*\*\*\*) Permitted on a 15% duty cycle, for a maximum 5 min period

SHAFT CONFIGURATIONS



SPLINE BILLET

**SB12**

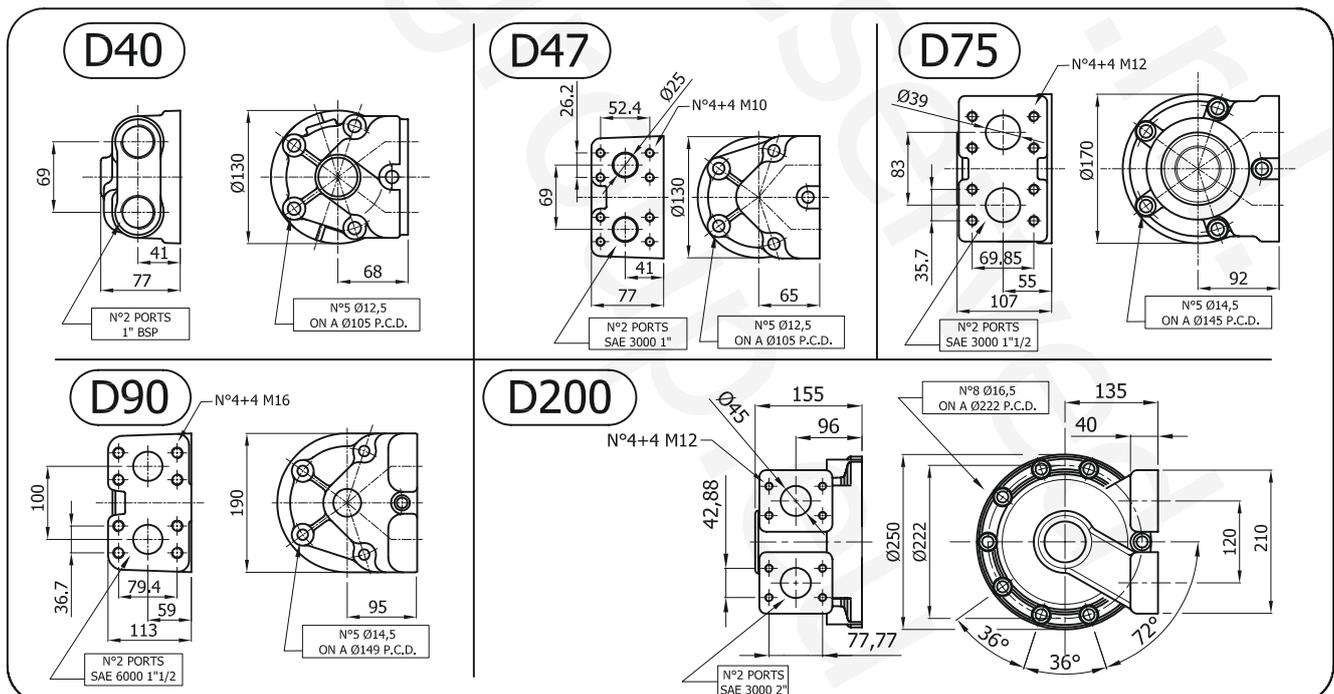


for IAMD H8/C A0

<b>IAMD</b>	Motor type
<b>---</b>	Displacement
<b>H -</b>	Motor housing
<b>A -</b>	Shaft type
<b>D --</b>	Distributor size
<b>---</b>	Tachometer (TA, TB,...) (optional) or tachometer predisposition (J)
<b>FL -</b>	Conversion flange (optional)
<b>SB --</b>	Spline billet (optional)
<b>Z --</b>	Italgrou reserved code for special features

Examples: IAMD 800 H4 A1 D47 J  
 IAMD 2500/C H6 A0 D90 TQ1 SB9

ACCESSORIES - FLOW DISTRIBUTORS



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ACCESSORIES - TACHOMETERS

**TA**

**TB**

**EST**

**TQ1**

**TT1**

**EST30**

Operating parameters	E-..../3	Model	Output	Fig.
Power supply (VDC)	10-30	E-..../..AP/....	PNP	D
Switching current (mA)	150			
Frequency (Hz) 100rpm	50			
Impulse/rpm	30			
Operating temp. (°C)	-24/+70			
Protection degree	IP67			
Output	NPN			
Motor type	All types			
MODEL	Ø5			
Torque	1 Nm			

ACCESSORIES - CONVERSION FLANGES

**FL2**

MR 350, 450, 600, 700  
 MRE 500, 800  
 distributor fitting

**FL8**

MR 3600, 4500  
 MRE 5400  
 distributor fitting

## CONTACT US

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internet: <http://www.italgroup.eu>

## REACH US



