

# Italgroup<sup>®</sup>

*HYDRAULIC MOTORS*

ITALY



**IAMD**

*Single displacement hydraulic motors – Heavy duty*

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# **ITALGROUP MOTORS**

## **IAMD SERIES**

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# **TECHNICAL CATALOGUE**

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***ITALGROUP MOTORS***  
***IAMD SERIES***

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***TECHNICAL CATALOGUE***

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***GENERAL INDEX***

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**FORMULAS**

$$\text{Torque [Nm]} = \text{Specific torque [Nm/bar]} * \text{Pressure [bar]}$$

$$\text{Torque [Nm]} = \frac{\text{Displacement [cc/Rev]} * \text{Pressure [bar]}}{62.8}$$

$$\text{Power [kW]} = \frac{\text{Torque [Nm]} * \text{Speed [rpm]}}{9549}$$

$$\text{Power [CV]} = \frac{\text{Torque [Nm]} * \text{Speed [rpm]}}{7023}$$

$$\text{Speed [rpm]} = \frac{\text{Flow [l/min]} * 1000}{\text{Displacement [cc/Rev]}}$$

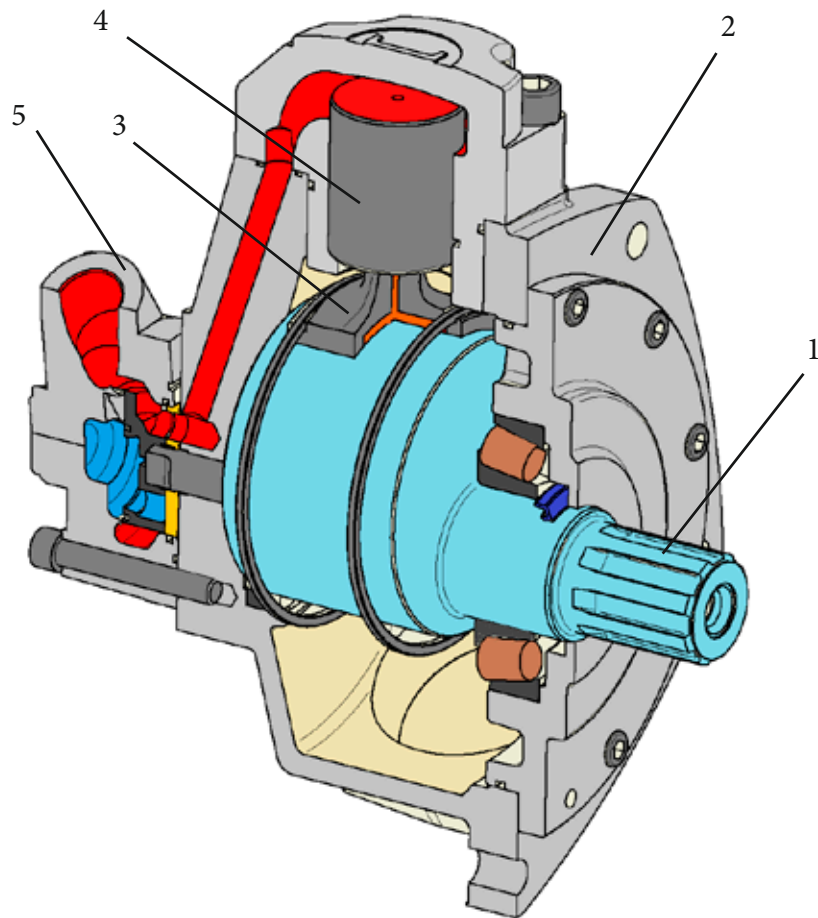
$$\text{Displacement [cc/Rev]} = \frac{\text{Torque [Nm]} * 62,8}{\text{Pressure [bar]}}$$

$$\text{Flow [l/min]} = \frac{\text{Displacement [cc/Rev]} * \text{Speed [rpm]}}{1000}$$

**Carefully read the use and maintenance manual before start-up the motor. The use and maintenance manual must be placed near to motor installation location in order to guarantee operators easy access to the instruction manual. For further information please contact Italgroup.**

**Motor description**

IAMD series motors are radial piston hydraulic motors (generally indicated as LSHT motors, low speed high torque motors) with a rotating shaft (1) and a stationary housing (2). The pistons (4) are located radially and the working fluid provide the mechanical force that push the pistons against the eccentric shaft, providing the shaft output torque. The inlet and outlet flow to and from the pistons is regulated by a distributor (5), that provides the oil distribution correct timing. The pistons transfer the forces to the eccentric shaft through a connecting rod (3). Acting in the adequate way (increasing or reducing the oil flow coming from the pump) the motor rotational speed can be increased or reduced. The motor design guarantee extremely high starting torque and high mechanical working efficiency. Respecting the limitation of working parameters (indicated into the technical datasheets) and all recommendations (including fluid recommendations), high motor lifetimes are obtained and very low maintenance requirements are needed.





## IAMD SERIES

Hydraulic motors of the IAMD series are single displacement crankshaft radial piston motors. Thanks to great variety of accessories IAMD series can be used in a wide range of applications such as:

- Marine equipments
- Winches
- Offshore equipments
- Conveyors
- Injection moulding machines
- Steel bending machines
- Fork lifts trucks
- Skid steer loaders
- Dumpers
- Agricultural and forestry machines
- Municipal vehicles
- Airport machinery

### Product Features:

- ✓ High volumetric and mechanical efficiencies
- ✓ Very smooth running at low speeds
- ✓ High starting torque / constant torque
- ✓ Wide speed range
- ✓ Compact Design
- ✓ Low maintenance and high reliability
- ✓ Bi-directional
- ✓ High radial and axial force allowed
- ✓ Speed sensor available
- ✓ Built-in valves available

## MOTOR TECHNICAL DATA

Motor	Size	Displacement	Theoretical torque	Max cont. pressure	Max cont. speed	Peak speed (**)	Max cont. power (*)	Max cont. power with flushing	Dry weight
		[cc]	[Nm/bar]	[bar]	[rpm]	[rpm]	[kW]	[kW]	[kg]
IAMD 300	H2	314	5	270	900	1100	42	62	42
IAMD 350	H3	342	5.4	270	850	950	80	120	68
IAMD 400	H3	390	6.2	270	750	860	80	120	68
IAMD 450	H3	452	7.2	270	650	760	80	120	68
IAMD 500	H3	492	7.8	270	600	690	80	120	68
IAMD 600	H3	594	9,5	270	500	570	80	120	68
IAMD 500	H4	493	7.8	270	700	800	120	150	92
IAMD 600	H4	584	9.3	270	700	800	120	150	92
IAMD 700	H4	714	11.4	270	500	580	120	150	92
IAMD 800	H4	792	12.6	270	450	520	120	150	92
IAMD 850	H4	847	13.5	270	420	490	120	150	92
IAMD 900	H4	904	14.4	270	400	460	120	150	92
IAMD 1000	H4	992	15.8	270	355	405	120	150	92
IAMD 1250	H4	1247	19.8	200	280	320	120	150	92
IAMD 1100	H45	1182	18.8	250	400	450	150	180	120
IAMD 1400	H45	1376	21.9	250	350	400	150	180	120
IAMD 900	H5	941	15	270	550	600	165	200	173
IAMD 1000	H5	1094	17.4	270	500	550	165	200	173
IAMD 1200	H5	1231	19.6	270	450	510	165	200	173
IAMD 1400	H5	1376	21.9	270	410	470	165	200	173
IAMD 1500	H5	1528	24.3	270	390	450	165	200	173
IAMD 1600	H5	1648	26.2	270	370	425	165	200	173
IAMD 1800	H5	1815	28.9	250	340	390	165	200	173
IAMD 2000	H5	2034	32.4	190	280	310	140	160	173
IAMD 1800	H55	1800	28.7	250	250	285	173	215	203
IAMD 2100	H55	2066	32.9	250	220	250	175	215	203
IAMD 2300	H55	2293	36,5	250	210	235	185	215	203
IAMD 2400	H55	2393	38.9	240	190	220	170	200	203
IAMD 1800	H6	1866	29.7	270	350	400	210	235	308
IAMD 2000	H6	1993	31.7	270	350	400	210	235	308
IAMD 2200	H6	2126	35.1	270	325	375	210	235	308
IAMD 2500	H6	2525	40.2	270	285	325	210	235	308
IAMD 2800	H6	2807	44.7	270	250	290	210	235	308
IAMD 3000	H6	2983	47.5	270	235	270	210	235	308
IAMD 3200	H6	3289	52.4	270	210	240	210	235	308
IAMD 3500	H6	3479	55.4	270	200	230	210	235	308

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## MOTOR TECHNICAL DATA

Motor	Size	Displacement [cc]	Theoretical torque [Nm/bar]	Max cont. pressure [bar]	Max cont. speed [rpm]	Peak speed (**) [rpm]	Max cont. power (*) [kW]	Max cont. power with flushing [kW]	Dry weight [kg]
IAMD 3400	H7	3413	54.3	270	200	220	230	258	405
IAMD 3600	H7	3650	58,1	270	185	210	230	258	405
IAMD 3900	H7	3907	62.2	270	175	200	230	258	405
IAMD 4300	H7	4303	69.1	270	160	185	230	258	405
IAMD 4600	H7	4616	73.5	270	150	170	230	258	405
IAMD 5000	H7	5088	81	270	140	160	230	258	405
IAMD 5400	H7	5384	85.7	270	130	150	230	258	405
IAMD 6000	H8	5966	95	250	120	140	200	225	590
IAMD 6500	H8	6581	104.7	250	120	140	200	225	590
IAMD 6800	H8	6962	110.8	250	120	140	200	225	590
IAMD 7600	H8	7620	121.3	190	90	100	200	225	590
IAMD 8000	H8	8062	128.3	180	80	90	178	225	590

For all motors:

- Hydrostatic test pressure: 420 bar
- Refer to motor performance diagrams for more information

- (\*) For motor operation with a continuous duty cycle at maximum continuous power the flushing is usually required. For more information please contact our technical department.
- (\*\*) Do not exceed maximum continuous power with flushing.

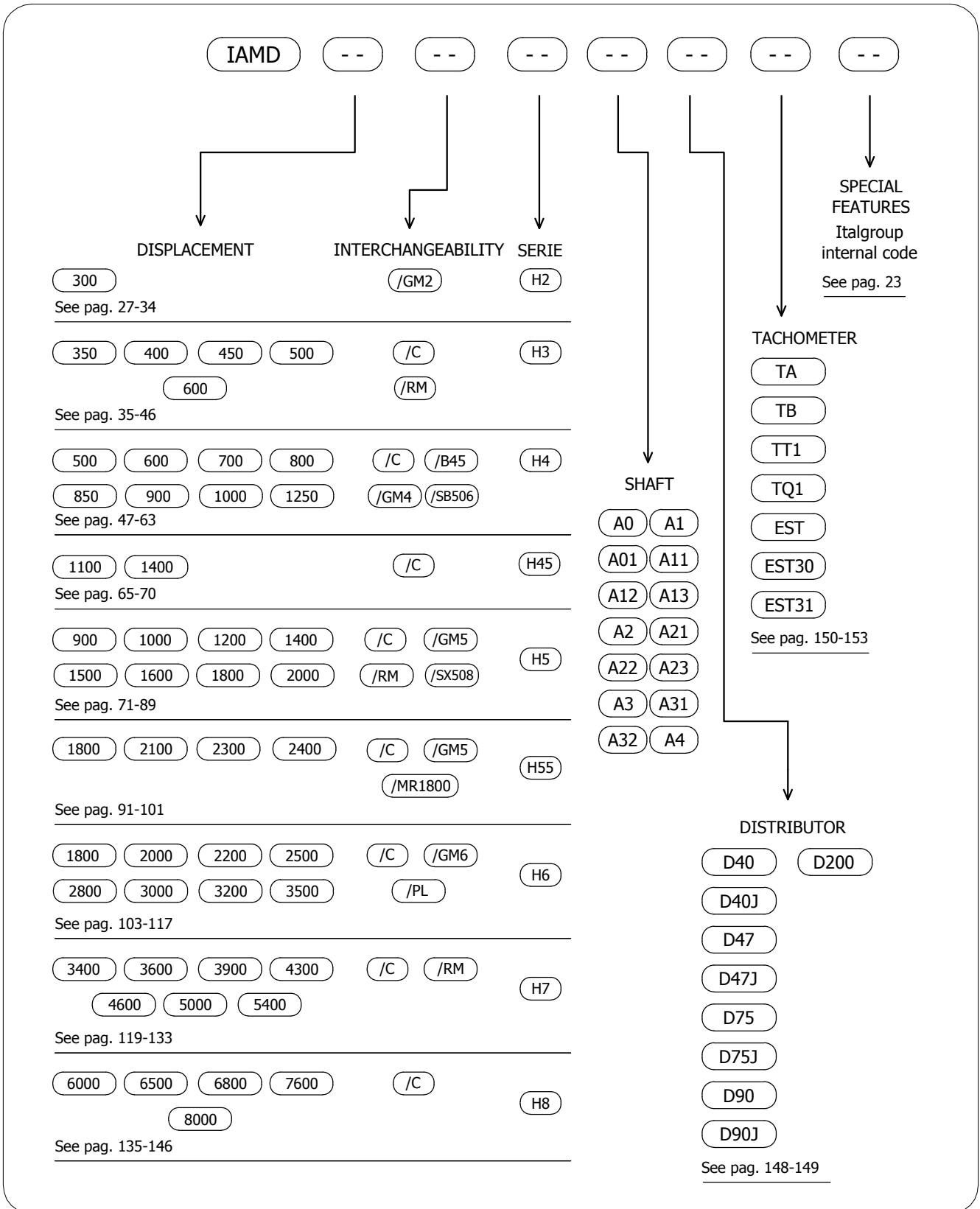
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## INTERCHANGEABILITY CHART

### Interchangeability chart

Italgroupp motor code	Cross reference motor code
IAMD 450/B30	HMB 30
IAMD 800/B45	HMB 45
IAMD 1000 H5	HMB 60
IAMD 1400 H5	HMB 80
IAMD 1600 H5	HMB 100
IAMD 2300 H55	HMB 125
IAMD 2500 H6	HMB 150
IAMD 3000 H6	HMB 200
IAMD 4300 H7	HMB 270
IAMD 5400 H7	HMB 325
IAMD 6800 H8	HMB 400
IAMD 350-450-500/C H3	MR 350 - MR 450 - MRE 500
IAMD 600-700-800/C H4	MR 600 - MR 700 - MRE 800
IAMD 1100-1400/C H45 IAMD 1000-1400/C H5	MR 1100 - MRE 1400
IAMD 1600-1800-2000/C H5 IAMD 1800-2100/MR1800 H55	MR 1600 - MR 1800 - MRE 2100
IAMD 2500-2800-3000/C H6	MR 2400 - MR 2800 - MRE 3100
IAMD 3600-4500-5400/C H7	MR 3600 - MR 4500 - MRE 5400
IAMD 6500-6800-8000/C H8	MR 6500 - MR 7000 - MRE 8200
IAMD 450-500/RM H3	RM 450 - RM 500
IAMD 900/RM H5	RM 900
IAMD 5000/RM H7	RM 5000
IAMD H2/GM2	GM2
IAMD H4/GM4	GM4
IAMD H5/GM5	GM5
IAMD H6/GM6	GM6

# IAMD - ORDERING CODE



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### 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 35-40 cSt, preferably in the range from 40 to 60 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 advise the following:

Room temperature	Oil
-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 [bar]	Max int. Pressure [bar]	Max Speed [rpm]
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.

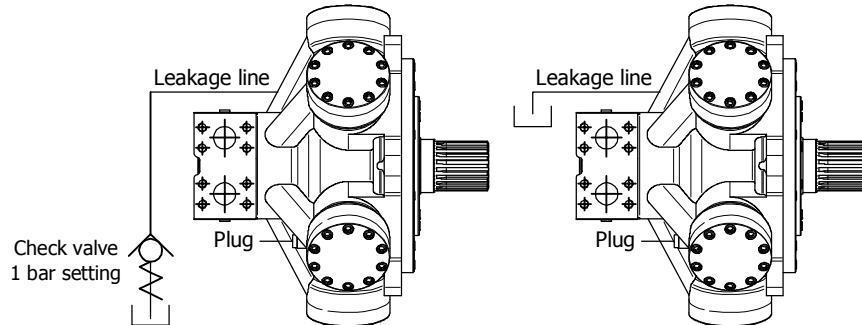
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### **Analysis**

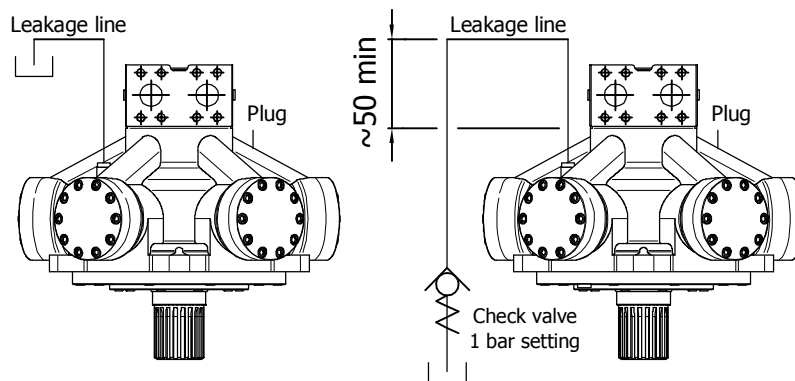
It is recommended oil being analyzed every 6 months. The analysis should cover viscosity, oxidation, water content, additives and contamination. Most oil suppliers are equipped to analyze oil state and to recommend appropriate action. Oil must be immediately replaced if the analysis shows that it is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

## DRAIN RECOMMENDATIONS

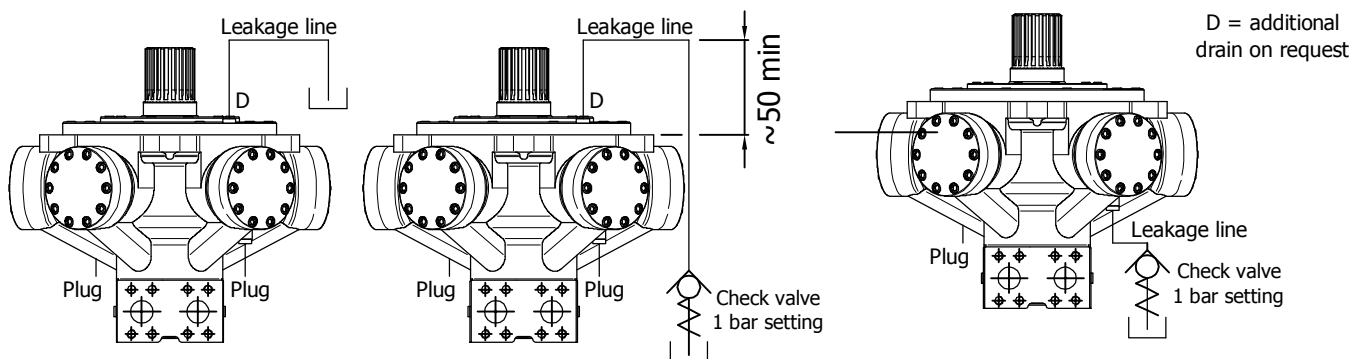
### Motor axis horizontal



### Motor axis vertical, shaft down



### Motor 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 10 bar pressure: therefore leakage lines must be shorter as possible and with a minimum flow resistance.

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## FLUSHING

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Motor	Flushing flow [l/min]
IAMD H2	5
IAMD H3	8
IAMD H4	10
IAMD H45 - IAMD H5	15
IAMD H55 IAMD H6 IAMD H7 IAMD H8	20

**Important note:** the above value are approximated. The correct way to operate is the following: the flushing flow is adequate if during the motor operation the drain oil viscosity be at least 35-40 cSt, preferably in the range from 40 to 60 cSt.

**Maximum continuous case pressure 10 bar (15 bar peak pressure).** Special seals for 20-25 bar continuous case pressure are available upon request (ordering code: HPS).

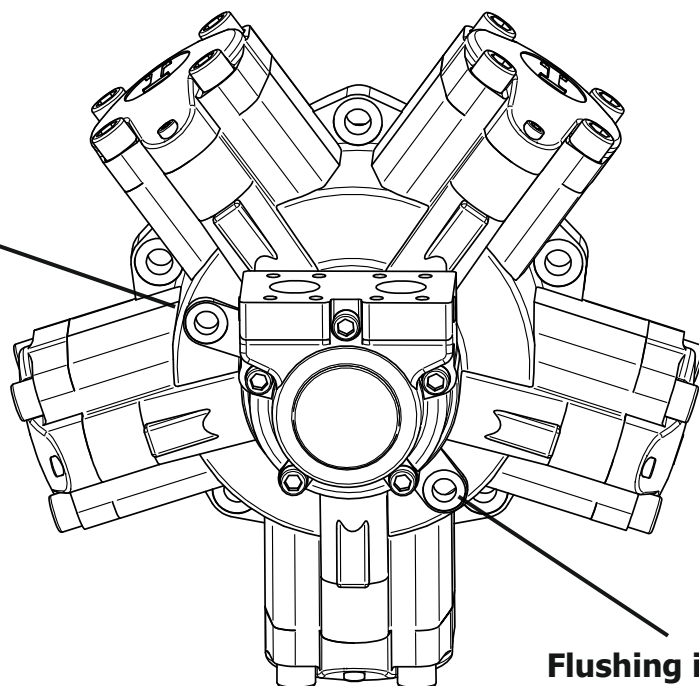
### Flushing outlet port

Please note: the flushing outlet port must always be located in the highest possible position.

### Maximum case pressure

10 bar continuous  
15 bar peak

For standard IAMD motors



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**Features**

Type: BABSL  
Form: AS DIN 3760  
Material: SIMRIT<sup>®</sup> 72 NBR 902  
SIMRIT<sup>®</sup> 75 FKM 595

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**Material**

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

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**Application**

Sealing lip and O.D.:

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

Metal insert:

- Plain steel DIN 1624

Spring:

- Spring steel DIN 17223

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**Operating conditions**

See Part B/ SIMMERRING<sup>®</sup>, sections 2. 4.

Media: mineral oils, synthetic oils

Temperature:

- 40°C to +100°C (SIMRIT<sup>®</sup> 72 NBR 902)
- 40°C to +160°C (SIMRIT<sup>®</sup> 75 FKM 595)

Surface speed: up to 5 m/s

Working pressure: see diagram on next page, pressure is function of surface speed (i.e. of rotating speed and shaft diameter)



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## STANDARD SHAFT SEAL FEATURES

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**Housing and machining criteria** See Part B/ SIMMERRING<sup>®</sup>, sections 2.

Shaft:  
Tolerance: ISO h11  
Concentricity: IT 8  
Roughness: Ra=0.2-0.8  $\mu\text{m}$   
Rz=1-4  $\mu\text{m}$   
Rmax=6  $\mu\text{m}$   
Hardness: 45-60 HRC  
Roughness: non oriented;  
preferably by plunge grinding

Housing:  
Tolerance: ISO H8  
Roughness: Rmax<25  $\mu\text{m}$

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### Pressure diagram

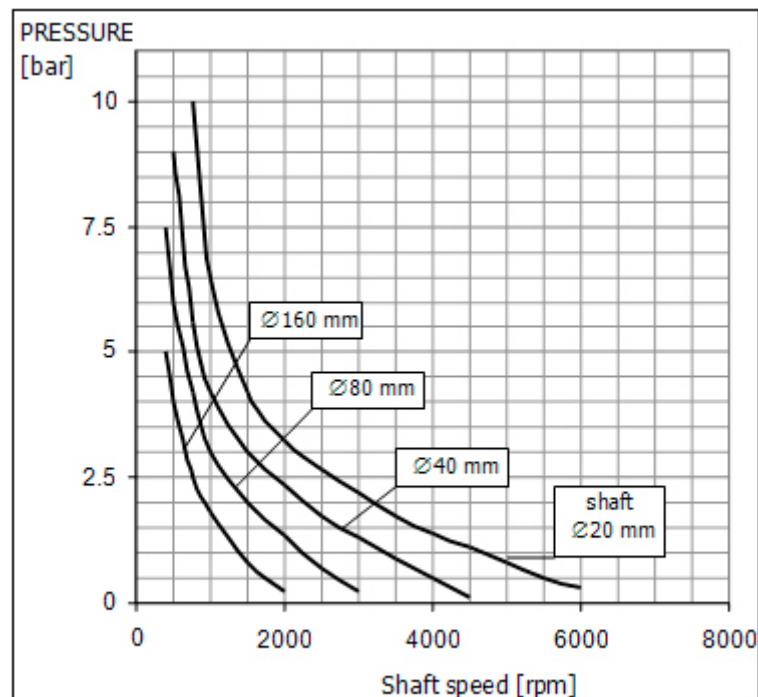


Diagram 1: Pressure Loading Limits

**Special seals for 15-20 bar continuous case pressure are available upon request (ordering code: HPS). Refer to page 23 for more information.**

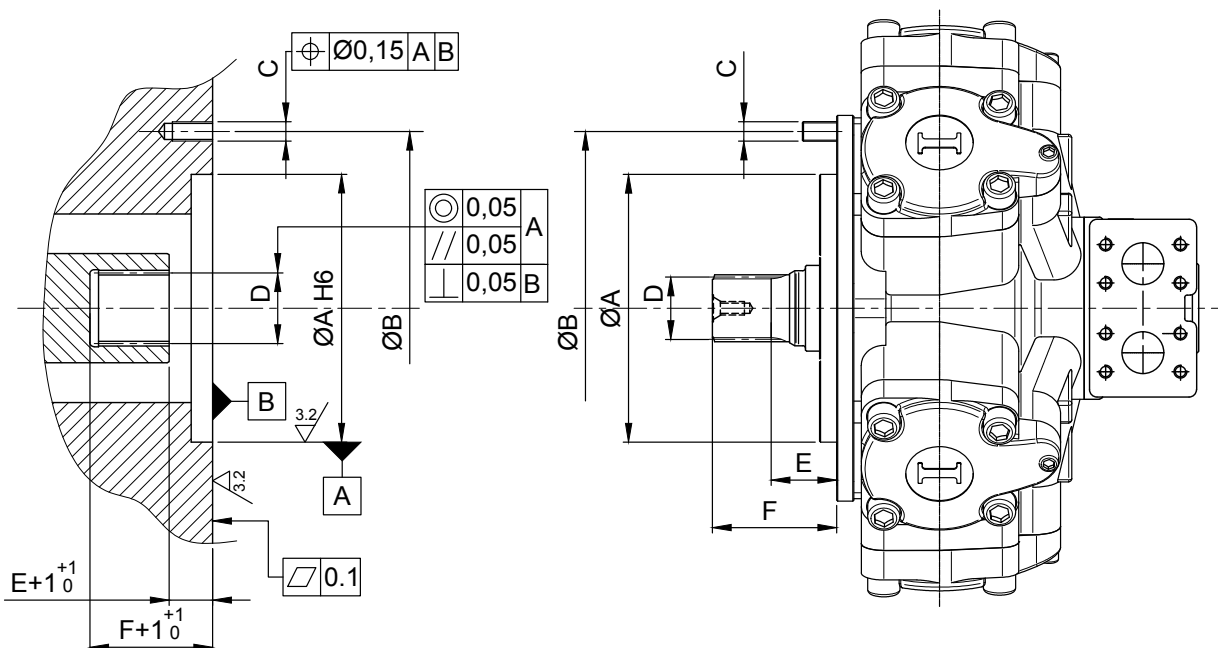
**Motor installation and start-up**

The motor, after testing, it's packed in different ways that depends by customer and/or logistic requirements. The motor must be carefully moved from his box or pallet, with the assistance of correctly sized movimentation tools, like eyebolts (all the motors has a thread hole in the shaft end, please refer to the IAMD general catalogue, shafts section) or lifting slings.

**When the motor is moved from one place to another always be very careful and act in a way that the motor is stable and under control during movimentation (refer to handling and storage section for more details).**

Before mount the motor, check carefully the absence of damage happened for example during transportation and/or storing.

For mounting dimensions please refer to the IAMD installation drawings. The motor must be installed using the correct screws size (we recommends the use of 10.9 and 12.9 class resistance fixing screws) and must be placed on a structure that is capable to correctly support the motor during functioning: for this reason the structure must not only be able to support the motor weight but must also assure the absence of vibration during operation and must win the reaction forces that are generated by the working torque. Regarding the motor fitting design, the concentricity between the centering diameter (spigot) and shaft (both splined or parallel) must be assured with a strict tolerance (please refer to the following general indication). If the concentricity between the shaft and the centering diameter and/or fixing holes is not respected, in the worst case the motor can have an unusual failure or can work only with low performances. Splined adaptors (splined billets) are available upon request.



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Hoses and piping must be clean and free from contamination. Use proper hoses for oil connection, both for inlet and outlet main ports, and for drain line. Refer to hoses and fitting constructors in order to correctly size and select hoses and fittings. In order to keep control on the oil compressibility keep hoses to the minimum recommended size and select pipelines most rigid as possible.

The motor can be mounted in any position (refer also to drain recommendations section). In run-away conditions you must use counterbalance valves. 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.

Consider the use of relief valves, possibly directly mounted on motor distributor in case the application can generate pressure peaks at the motor ports: the relief valve should be able to discharge all the flow (or at least a good part of it) with a limited pressure increase. Italgroup can provide different valve types that can be placed directly on the motor distributor (please refer to Italgroup valves technical catalogue).

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 reaches the working temperature. Connect the case drain directly to tank, and avoid excessive drain line pressure losses (the case drain pressure must not exceed 6 bar continuous pressure for IAMD series standard motors). 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. (See drain recommendations page for more details)

Maximum oil temperature must not exceed 70°C. Heat exchangers must be used with higher temperatures. 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: in fact 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.

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## MOTOR INSTALLATION AND START-UP

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

Minimum speed is very low and can reach values near to 0.5-1 rpm (depending on motor displacement). In case of low speed vibration a reasonable back pressure can eliminate or minimize the vibration and noise level (a general guideline value can be defined by 5-8 bar back pressure). For more information please contact our technical department.

Back pressure limit for IAMD series motors is 70-80 bar (back pressure occurs for example when hydraulic motors are installed in series circuit). High back pressure values are often responsible of motor overheating, so if drain temperature reach values that bring the oil viscosity under the recommended limit (refer to fluid recommendations section), perform appropriate motor flushing and/or reduce the back pressure.

During start-up and in the period immediately after it, any hydraulic installation must be regularly and carefully checked at frequent intervals. The working pressure must be checked in order to understand that it agrees with the design values. The drain line pressure for standard motors must not overcome 6 bar continuous. If leakage occurs, check the reason, correct it and carry out new measurements. Check all lines, connections, screws, etc, and tighten if necessary. Replace contaminated fluid immediately.

The motor installation and start-up must be performed by instructed and experienced personnel only.

Please contact us freely to obtain further information.

### Motor handling

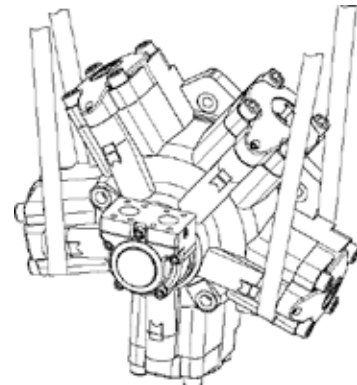
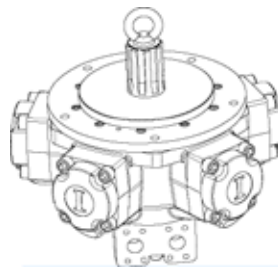
The motor must be correctly packed during transport and correctly stored into the warehouse in order to avoid eventual damages that can make the motor functioning not adequate.

During handling operations, make sure that the motor shaft and tachometer shaft (if present) don't receive any hit, in order to avoid motor damage.

During all operations of lifting and handling, never movimentate motors by hand but use adequate tools. In order to avoid that motor can falls, creating danger for authorized working persons in the nearings, use one of following methods:

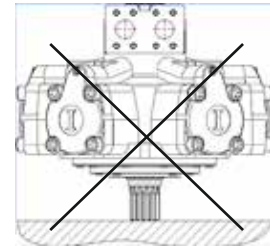
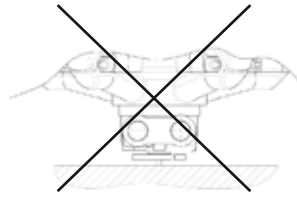
- use lifting slings of adequate capacity;
- use adequate eyebolt using the thread hole in the shaft end.

Refer to the following pictures.



### Motor storing

Storing must be carefully made using adequate storing tools (for example boxes, pallets, etc...) that can guarantee that the motor is stable and cannot move without control, in order to avoid damage problems. Make sure that the weight of the motor doesn't be substained by the motor shaft or by the tachometer shaft (if present).



IAMD series motors are supplied together with plastic plugs, that keep the hydraulic oil (that was used during final test in Italgroup testing workbench) inside the motor. A thin oil film is present on the internal motor parts, whereas the external parts are covered with antirust oil that prevents damage from oxidation and corrosion.

Therefore the motors can be safely stored into the customer warehouse without performance losses for long periods (up to 4-6 months).

The storing location must has some important characteristics:

- room temperature comprised between -15°C and +55°C without fast and/or excessives temperature excursions;
- low relative humidity;
- absence of aggressive and corrosive medias in the motor nearings.

In particular, if motor should be motionless for more than 4-6 months, it must be protected against internal rust. Proceed as follows:

- fill the motor case with hydraulic oil. After that the motor case is full of oil, close it with a screw plug;
- fill the motor also from inlet or outlet port. Turn the shaft by hand (the shaft must make about one revolution) and finally close the inlet and outlet ports.

Please note that the plastic plugs are necessary not only to keep the hydraulic oil inside the motor, but even to avoid that dirt and other fluids (like water for example) can enter into the motor and create damage during storing or during motor start-up. Therefore make sure all drain ports, supply ports and discharge ports are closed during motor handling and storing. If plugs are missing, use plastic plugs or adequate systems in order to guarantee that the motor is well protected by dirt and other fluids.

**Maintenance operations** All the assembly and maintenance works must be performed when the motor is stopped and not connected to any power source, in order to avoid an accidental start-up. In addition the pressure inside the motor must be set to zero (the motor must be depressurized) before to perform maintenance operations.

The motor maintenance must be performed by instructed and experienced personnel only, following carefully ItalgrouP advices and procedures.

IAMD series motors are internally lubricated by the operating fluid, if the motors are used according to the technical data reported into the IAMD catalogue, they need very limited maintenance operations. In order to achieve good performances, long bearings lifetime and safe working, the working fluid must be carefully selected in function of the operating parameters (a fundamental parameter is the ambient temperature range). In case of fire resistance fluid usage , some limitation on pressure and speed can be required. Refer to hydraulic fluid recommendations section for more information. If required please contact ItalgrouP technical department for further information.

Motor parts	Material
Motor shaft, cam ring, pins, screws, distributor bush, rotating distributor, distributor joint, pistons, connecting rod, ring for rod	Steel
Motor case, cylinders, motor flange, distributor body	Cast iron
Distributor disk, shoes	Bronze
Slippers	Charged PTFE, PTFE
O-Rings	Elastomer
Radial shaft seal rings	Elastomer

---

### Bearings

The bearing life depends by different factors, like bearing type, motor speed, working pressure, external loads, duty cycle, fluid viscosity, oil cleanliness, type and temperature.

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.

Please refer to bearing lifetime diagrams reported in the following pages to obtain the theoretical bearing lifetime. **The lifetimes diagrams shown the  $L_{50}$  median or average lifetime, that can be considered as 5 times  $L_{10}$ .**

**Please note that the theoretical lifetime can be different from the real lifetime, especially in case of heavy duty applications with continuous work cycle.** Please contact Italgrou S.r.l. for more information.

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### Motor creep speed

**The hydraulic motor is able to hold the load acting as a brake (if proper valves or circuit are considered and installed), but a certain creep speed is always present: this is typical of all brands hydraulic motors.**

The motor creep speed depends by many factors, like operating conditions (motor displacement and type, pressure load on the shaft, oil viscosity, type and temperature) and are represented in the creep speed diagrams (see performance diagrams for each motor size). **The creep speed diagrams are shown for an hydraulic oil at reference conditions of 40 cSt.**

**If creep speed is higher than desired value a negative brake can be considered: Italgrou can supply negative brakes that can be fitted to the hydraulic motor.** Please contact Italgrou S.r.l. for more information.



**Special features****Marine painting**

If needed, special painting or primers are available in order to guarantee optimal protection against normal corrosion and marine environment corrosion. The ordering code is MP. Please contact ItalgrouP S.r.l. for more information.

**Speedy-sleeve**

A special inox sleeve is available upon request. In case the motor is used in aggressive medias or environments, this can be very useful in order to protect the motor shaft surface located in proximity of the motor shaft seal. This improves the shaft and seal endurance respect to wear and corrosion. The ordering code is SPSL. Please contact ItalgrouP S.r.l. for more information.

**High pressure shaft seal**

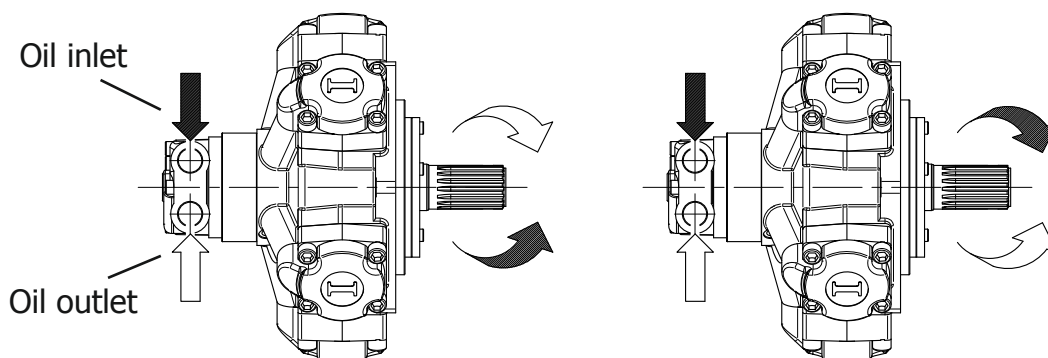
Standard IAMD motors are supplied with high pressure shaft seals, the continuous drain pressure must be maximum 10 bar, whereas the peak drain pressure must be maximum 15 bar. In case the drain line can or must has a higher pressure, special shaft seals are available upon request. The ordering code is HPS. The drain pressure with HPS shaft seal can reach 20-25 bar continuous pressure and 30 bar peak pressure. The HPS shaft seal is bi-directional also, so it can be used for example in underwater applications. Please contact ItalgrouP S.r.l. for more information.

**Counterclockwise rotation**

Standard IAMD motors are supplied with clockwise distributor timing. Please refer to the installation drawings of each section for more information. With ordering code CCW the motor is supplied with counterclockwise rotation timing. Contact ItalgrouP for more information.

Standard timing

CCW timing



## TROUBLESHOOTING

Problem	Possible cause	Solution
Excessive noises	Cavitation	Adopt an anti-cavitation system
	Mechanical vibrations	Check and fix damaged components
	Irregular pressure or flow	Check other components (pump, valves, accumulators) and check drain flow
	Air bubbles in the circuit	Bleed circuit
Unit overheating	Overflow	Check max allowed flow
	Overpressure	Check relief valve pressure setting
	Oil viscosity too low	Choose the appropriate oil according to the temperature
	Undersized cooling system	Improve cooling system
	Working without oil in the case	Overhaul the unit, fill with oil before start-up
Anomalous drainage flow	Worn motor internal components	Overhaul the motor
	Motor internal seals worn	Overhaul the motor
	Excessive pressure in the motor case	Check drain port size, pressure and flow, check piping connections
Insufficient torque	Pressure relief valve set incorrectly	Check relief valve pressure setting
	Undersized motor displacement	Replace with bigger displ. motor
	Pump not able to reach the design pressure	Check pump integrity
Insufficient speed	Oversized motor displacement	Replace with smaller displ. motor
	Pump not able to reach the design flow	Check pump integrity
	Undersized pump	Improve pump output flow
	Excessive drain flow	Overhaul the motor
Output shaft cannot rotate	Seized motor flow distributor	Overhaul the flow distributor
	Motor internal seizure	Overhaul the motor
	Motor internal seals worn	Check drain flow, overhaul the motor
	Air in the circuit	Bleed the circuit

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## TROUBLESHOOTING

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<b>Problem</b>	<b>Possible cause</b>	<b>Solution</b>
Oil leakage	Worn seals	Replace seals
	Excessive pressure in the motor case	Check drain port size, pressure and flow, check piping connections
	Burst motor shaft seal	Check drain port size, pressure and flow, check piping connections
Incorrecte sense of rotation	Pipes incorrectly connected	Check pipe connections
	Incorrect rotating distributor timing	Change rotating distributor timing

## UNIT CONVERSIONS

**LENGHT** 1 m = 39,3701 in

= 3,2808 ft

= 1,0936 yd

= 1000 mm

1 in = 0,0833 ft

= 25,4 mm

1 ft = 0,3048 m

= 0,3333 yd

= 12 in

1 yd = 0,9144 m

= 3 ft

= 36 in

1 km = 1000 m

= 1093,6 yd

= 0,6214 mile

1 mile = 1,609 km

= 1760 yd

**SPEED** 1 m/s = 3,6 km/h

= 2,237 mph

= 3,2808 ft/s

1 km/h = 0,2778 m/s

= 0,6214 mph

= 0,9113 ft/s

1 mph = 1,609 km/h

= 0,447 m/s

= 1,467 ft/s

1 ft/s = 0,3048 m/s

= 1,0973

km/h

= 0,6818 mph

**MASS** 1 kg = 2,2046 lb

**FORCE** 1 N = 0,102 kgf

= 0,2248 lbf

1 kgf = 2,205 lbf

= 9,806 N

1 lbf = 0,4536 kgf

= 4,448 N

**PRESSURE** 1 bar = 14,223 psi

= 0,99 atm

= 1,02 ata

= 100000 Pa

= 100 kPa

= 0,1 MPa

1 psi = 0,0703 bar

**FLOW** 1 l/min = 0,264 gpm

= 1000 cc/Rev

1 gpm = 3,785 l/min

= 3785 cc/min

1 m<sup>3</sup>/s = 60000 l/min

= 15852 gpm

**POWER** 1 kW = 1,341 HP

= 1,3596 CV

1 HP = 0,7457 kW

= 1,0139 CV

**VOLUME** 1 m<sup>3</sup> = 1000 l

1 l = 61,023 in<sup>3</sup>

= 0,264 galUS

1 in<sup>3</sup> = 0,01639 l

= 16,39 cm<sup>3</sup>

= 0,004326

galUS

1 galUS = 3,7879 l

= 231,15 in<sup>3</sup>

**TORQUE** 1 Nm = 0,102 kgm

= 0,7376 lbf ft

1 kgm = 9,806 Nm

= 7,2325 lbf ft

1 lbf ft = 0,1383 kgm

= 1,3558 Nm

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**ITALGROUP SRL**  
**IAMD SERIES - IAMD H2**  
**GENERAL CATALOGUE**

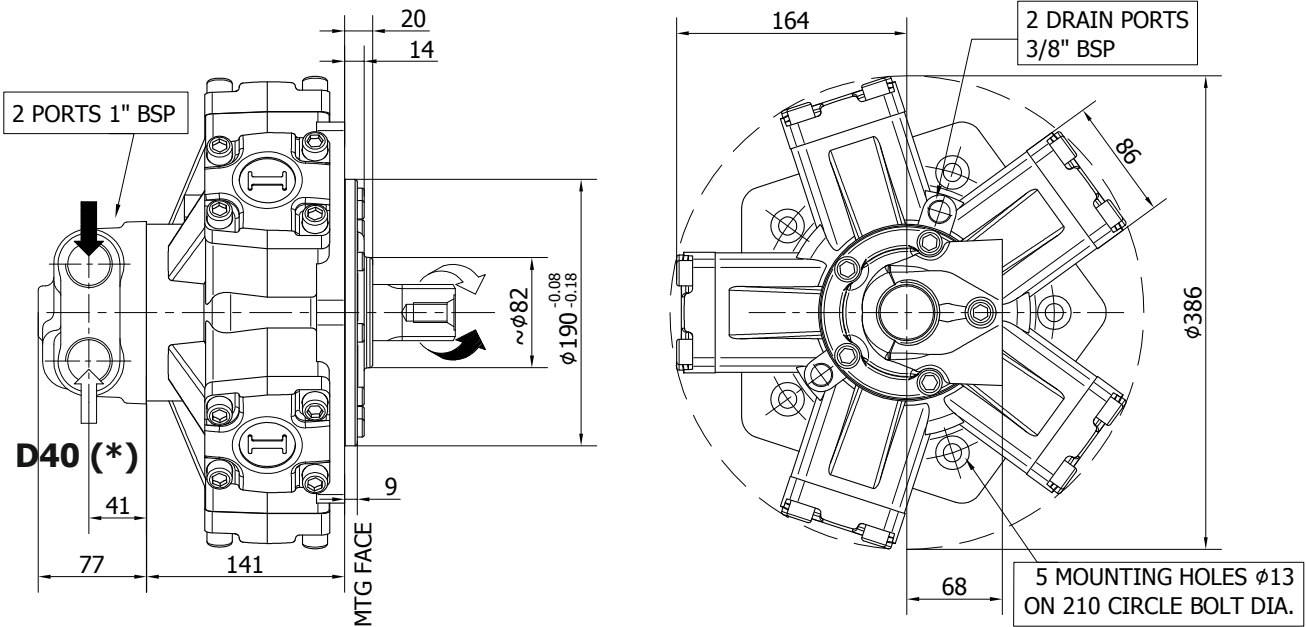
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**INDEX - IAMD H2**

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<u>IAMD H2/GM2 - INSTALLATION DRAWING</u>	„	30 - 31
<u>IAMD H2 - PERFORMANCE DIAGRAMS</u>	„	32 - 33
<u>ORDERING CODE</u>	„	34

**INSTALLATION DRAWING**



**TECHNICAL DATA**

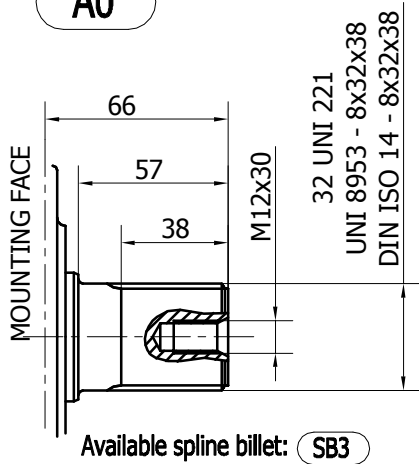
		<b>300</b>
DISPLACEMENT	[cc]	314
SPECIFIC TORQUE	[Nm/bar]	5.00
MAX. CONT. PRESSURE	[bar]	270
HYDROSTATIC TEST PRESSURE	[bar]	420
MAX. CONT. SPEED	[rpm]	900
PEAK SPEED (***)	[rpm]	1100
MAX. CONT. POWER (****)	[kW]	42
MAX. CONT. POWER WITH FLUSHING	[kW]	62
MAX. CASE PRESSURE	[bar]	6
DRY WEIGHT	[kg]	42
TEMPERATURE RANGE (**)	[°C]	-30÷70

- (\*) The standard distributor (D40) is shown. Please refer to distributors section (pag. 148-149) for different distributor interfaces.
- (\*\*) Please refer to the hydraulic fluid recommendations (pag. 10-11).
- (\*\*\*) Do not exceed maximum continuous power with flushing (see pag. 13).
- (\*\*\*\*) For motor operation with a continuous duty cycle at maximum continuous power the flushing is usually required. For more information please contact our technical department.

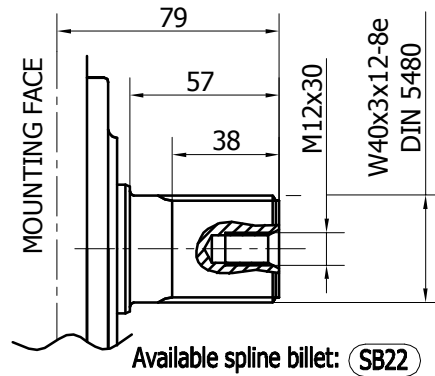
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SHAFT CONFIGURATIONS

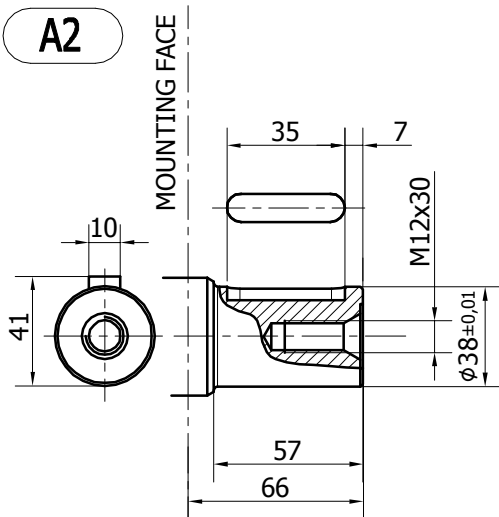
**A0**



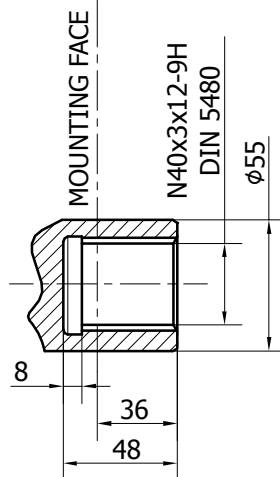
**A1**



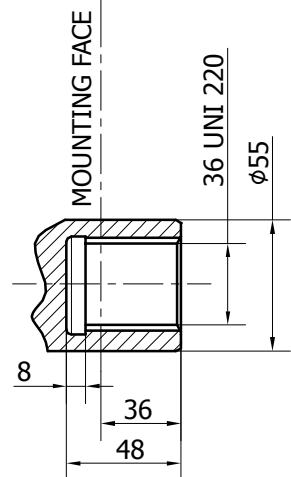
**A2**



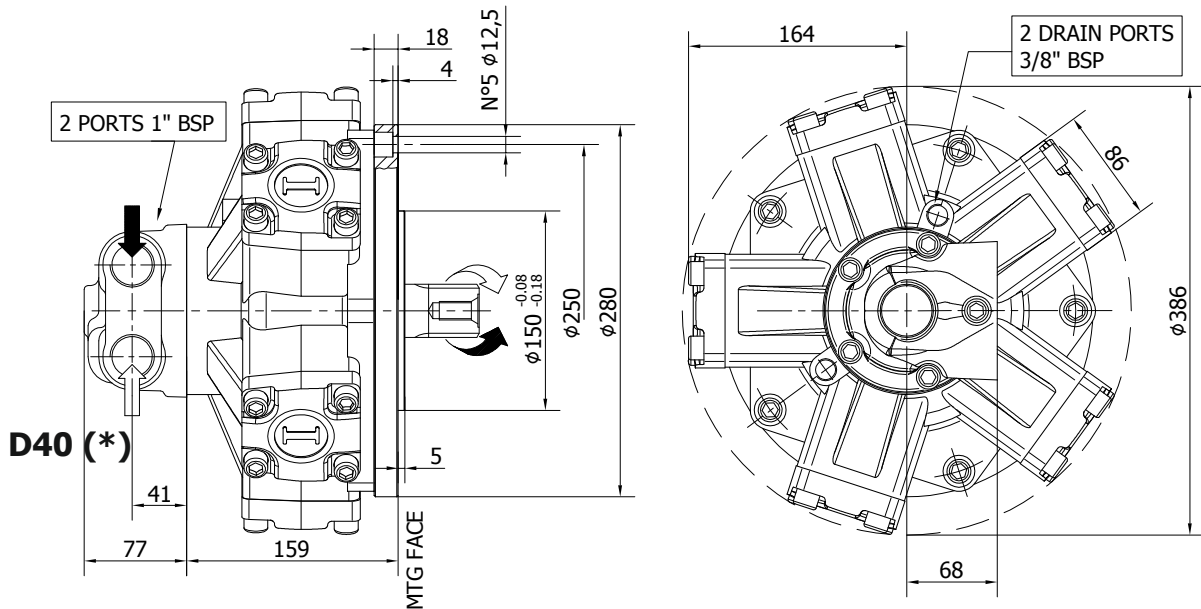
**A3**



**A31**



**INSTALLATION DRAWING**



**TECHNICAL DATA**

		<b>300</b>
DISPLACEMENT	[cc]	314
SPECIFIC TORQUE	[Nm/bar]	5.00
MAX. CONT. PRESSURE	[bar]	270
HYDROSTATIC TEST PRESSURE	[bar]	420
MAX. CONT. SPEED	[rpm]	900
PEAK SPEED (***)	[rpm]	1100
MAX. CONT. POWER (****)	[kW]	42
MAX. CONT. POWER WITH FLUSHING	[kW]	62
MAX. CASE PRESSURE	[bar]	6
DRY WEIGHT	[kg]	42
TEMPERATURE RANGE (**)	[°C]	-30÷70

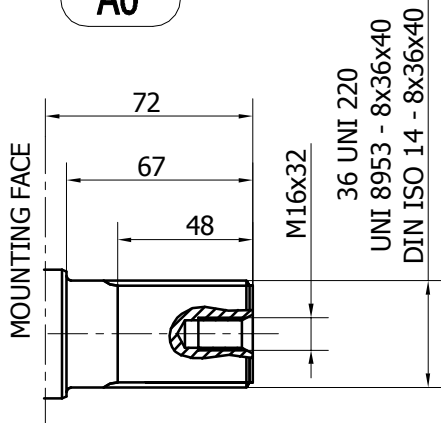
- (\*) The standard distributor (D40) is shown. Please refer to distributors section (pag. 148-149) for different distributor interfaces.
- (\*\*) Please refer to the hydraulic fluid recommendations (pag. 10-11).
- (\*\*\*) Do not exceed maximum continuous power with flushing (see pag. 13).
- (\*\*\*\*) For motor operation with a continuous duty cycle at maximum continuous power the flushing is usually required. For more information please contact our technical department.

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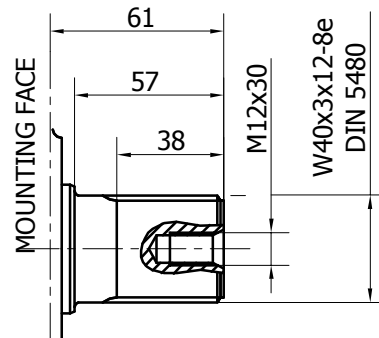
SHAFT CONFIGURATIONS

**A0**



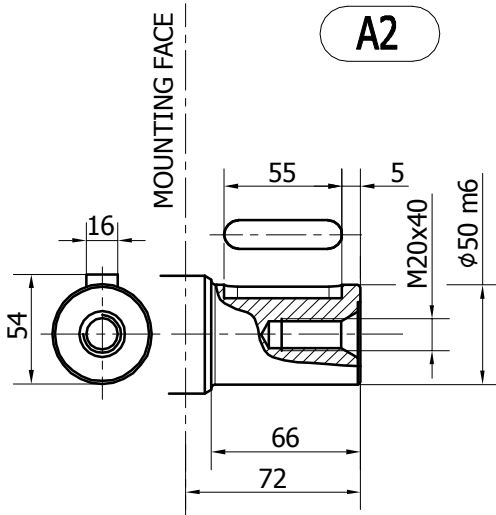
Available spline billet: **SB3**

**A1**

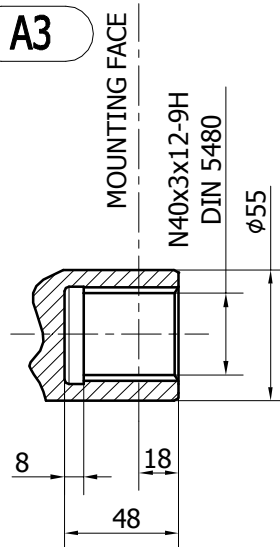


Available spline billet: **SB22**

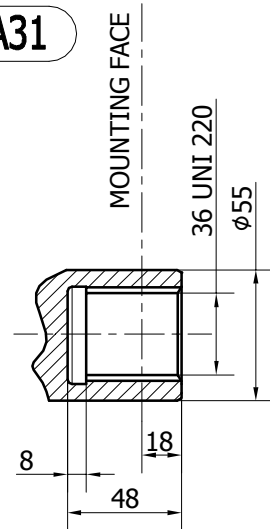
**A2**



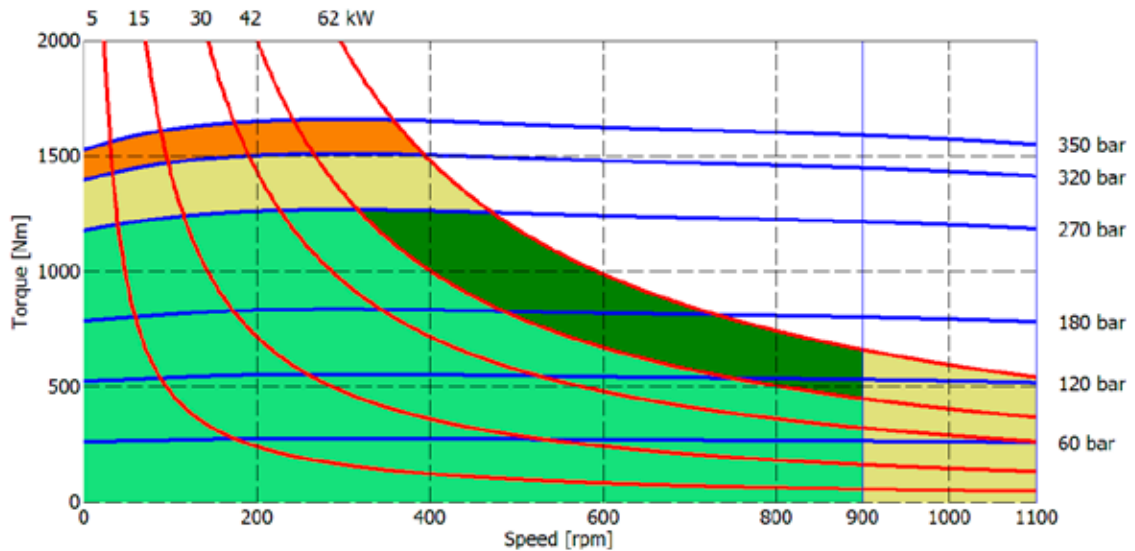
**A3**



**A31**



**300 cc**

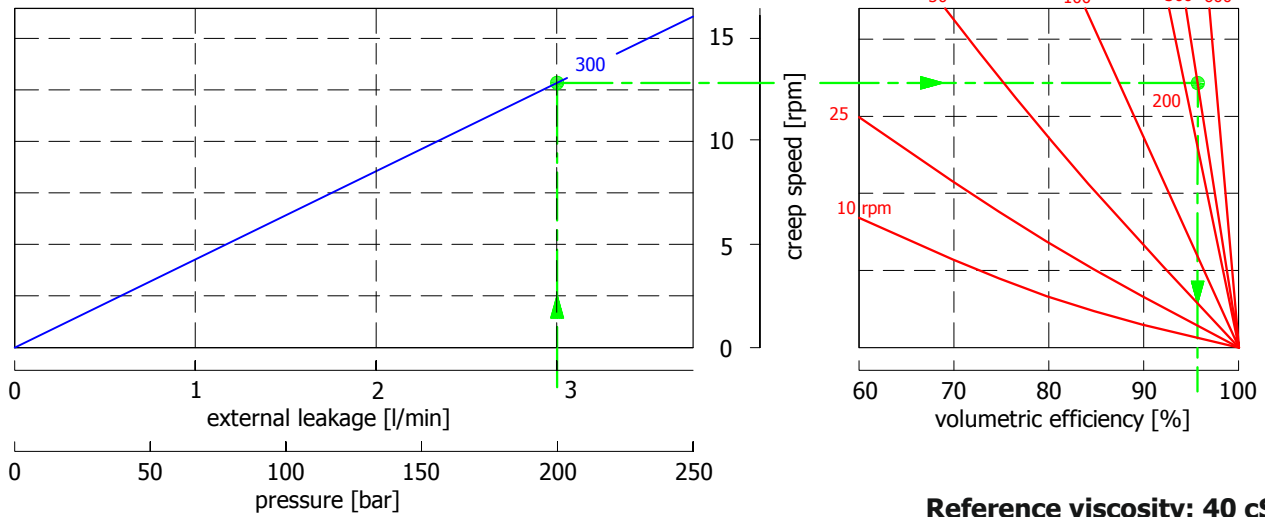


- Continuous operation
- Continuous operation with flushing or intermittent operation (see below for intermittent operation)
- Intermittent operation: permitted for a 15% of duty cycle, for 3 minutes maximum period
- Peak operation: permitted for very short periods (3-5 seconds every 10-15 minutes)

**The above diagrams are referring to the hydraulic motor working with a fluid in ideal conditions (viscosity at 40 cSt).** In case the working temperature increases and viscosity reach values under the recommended values (see hydraulic fluid recommendations) flushing must be performed or ISO oil grade must be changed. The working temperature must not overcome 70 °C.

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## CREEP SPEED - VOLUMETRIC EFFICIENCY

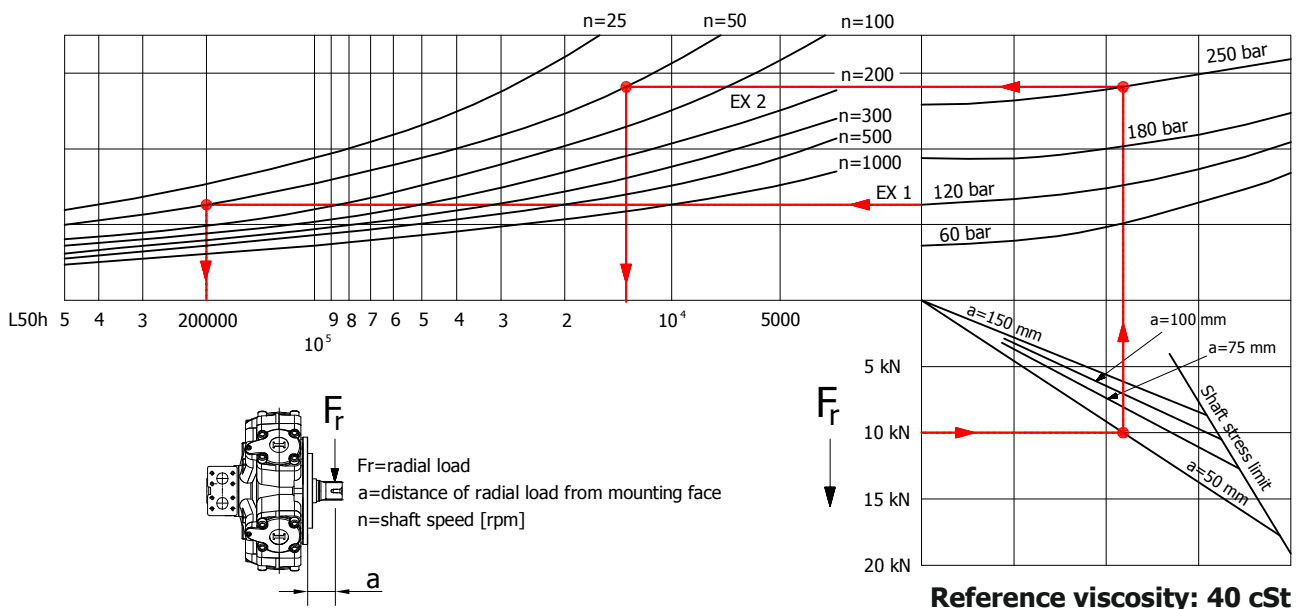


Reference viscosity: 40 cSt

Example:

We suppose (300 cc):  $p=200$  [bar], we obtain: external leakage 2,9 [l/min], shaft creep speed 12,7 [rpm].  
If we suppose (300 cc):  $p=200$  [bar] and  $n=300$  [rpm] we obtain a volumetric efficiency of 96%;

## BEARING LIFE



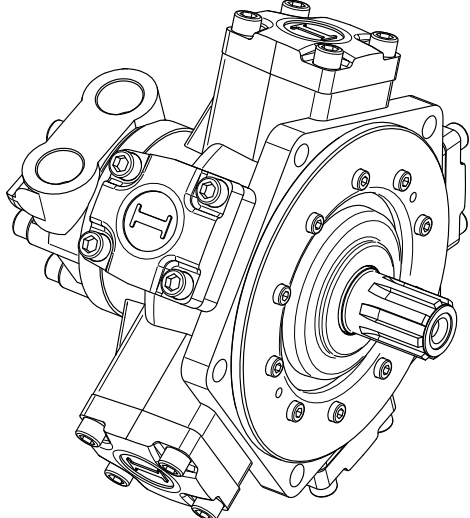
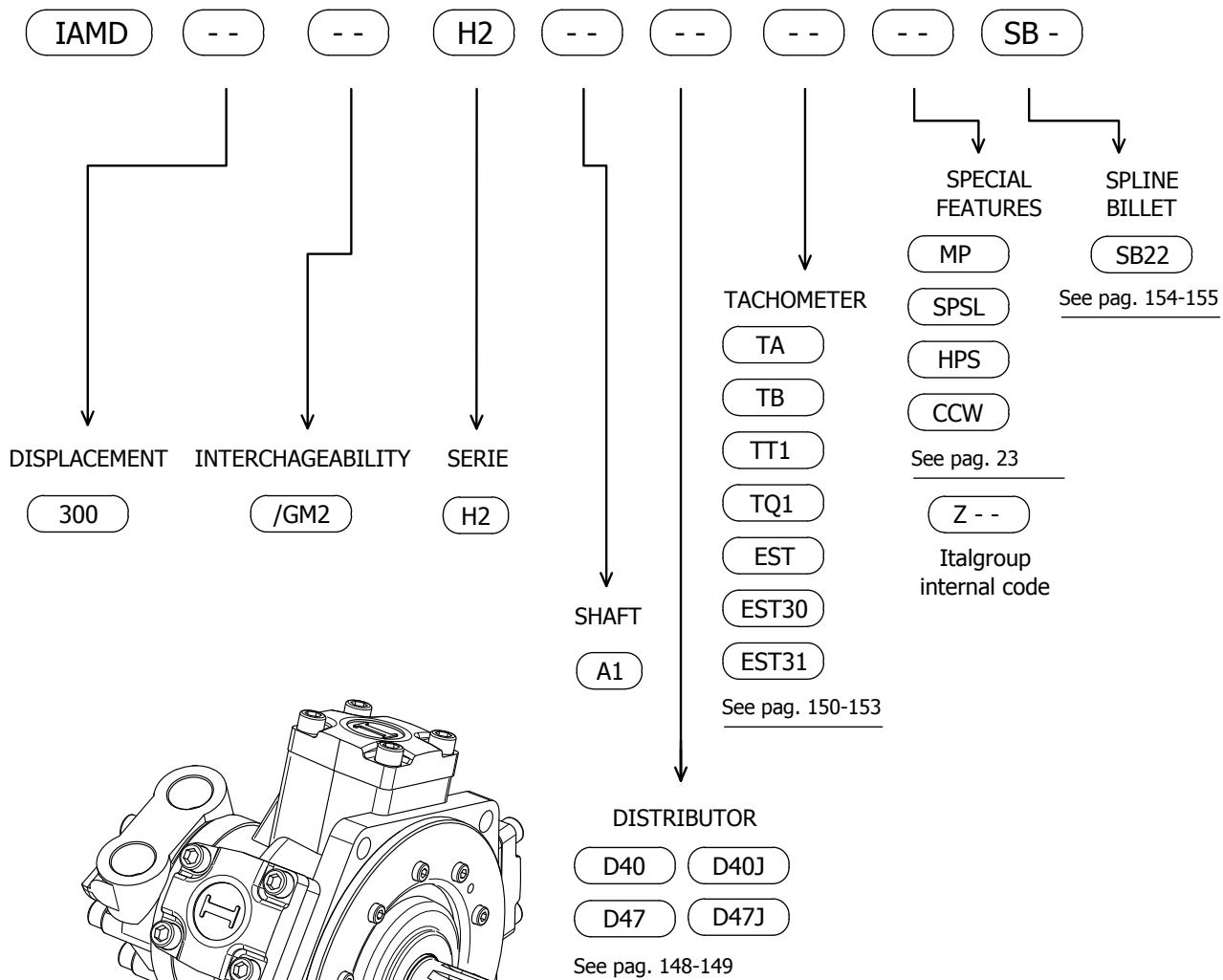
Reference viscosity: 40 cSt

Example:

We suppose (EX1):  $p=120$  [bar],  $n=50$  [rpm]; we obtain an average lifetime of 200000 [h].  
If we suppose (EX2):  $F_r=10$  [kN],  $a=50$  [mm],  $n=50$  [rpm] and  $p=250$  [bar] we obtain an average lifetime of 12500 [h].

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## IAMD H2 - ORDERING CODE



### EXAMPLES:

IAMD 300 H2 A1 D40  
IAMD 300/GM2 H2 A1 D40J  
IAMD 300/GM2 H2 A1 D47 CCW SB22

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**ITALGROUP SRL**  
**IAMD SERIES - IAMD H3**  
**GENERAL CATALOGUE**

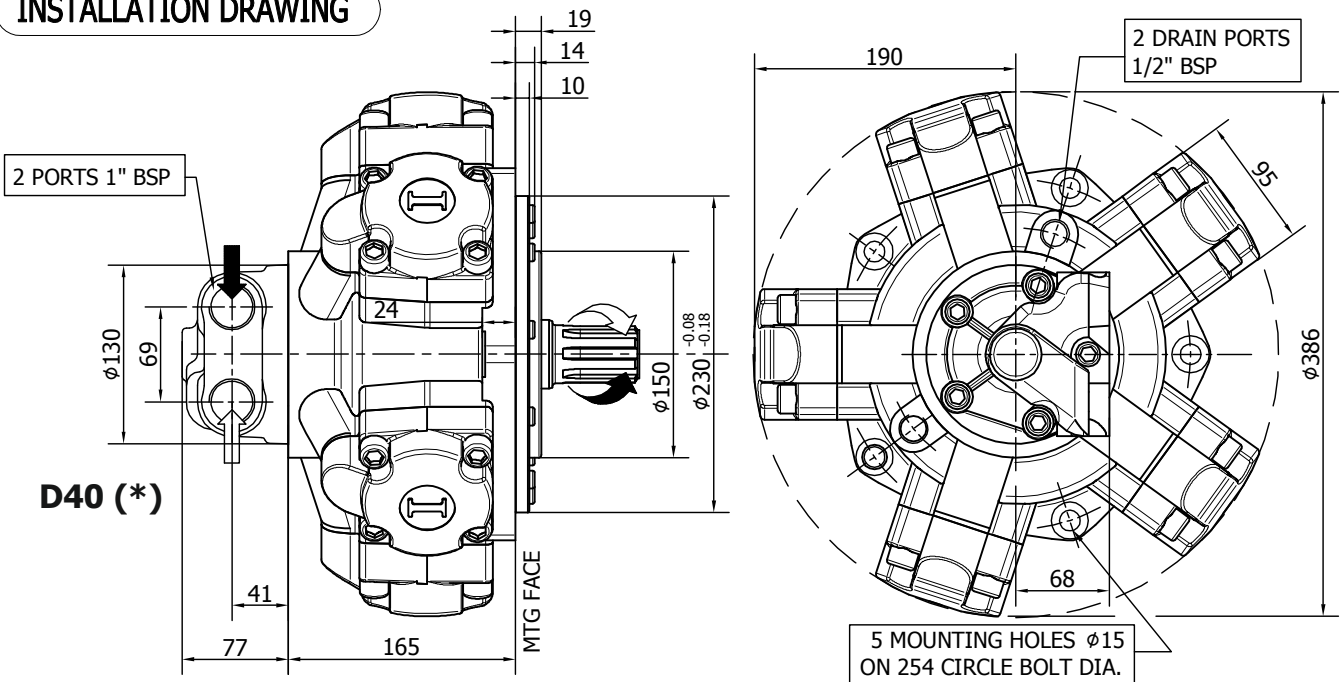
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<u>IAMD H3/RM - INSTALLATION DRAWINGS</u>	“	40 - 41
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**INSTALLATION DRAWING**



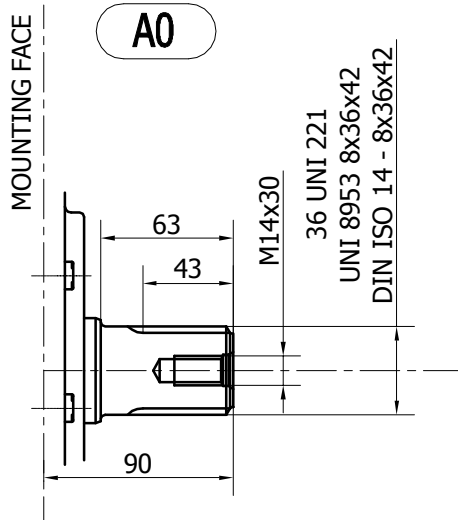
**TECHNICAL DATA**

		<b>350</b>	<b>400</b>	<b>450</b>	<b>500</b>	<b>600</b>
DISPLACEMENT	[cc]	342	390	452	492	594
SPECIFIC TORQUE	[Nm/bar]	5.44	6.2	7.20	7.80	9,46
MAX. CONT. PRESSURE	[bar]	270	270	270	270	270
HYDROSTATIC TEST PRES-SURE	[bar]	420	420	420	420	420
MAX. CONT. SPEED	[rpm]	850	750	650	600	500
PEAK SPEED (***)	[rpm]	950	860	760	690	570
MAX. CONT. POWER (****)	[kW]	80	80	80	80	80
MAX. CONT. POWER WITH FLUSHING	[kW]	120	120	120	120	120
MAX. CASE PRESSURE	[bar]	6	6	6	6	6
DRY WEIGHT	[kg]	68	68	68	68	68
TEMPERATURE RANGE (**)	[°C]	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70

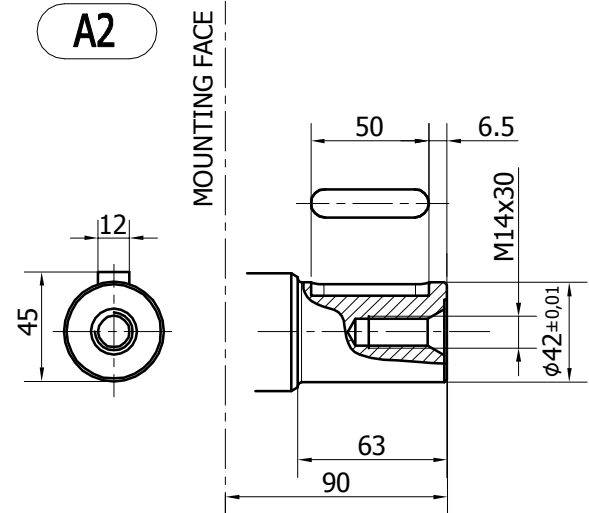
- (\*) The standard distributor (D40) is shown. Please refer to distributors section (pag. 148-149) for different distributor interfaces.
- (\*\*) Please refer to the hydraulic fluid recommendations (pag. 10-11).
- (\*\*\*) Do not exceed maximum continuous power with flushing (see pag. 13).
- (\*\*\*\*) For motor operation with a continuous duty cycle at maximum continuous power the flushing is usually required. For more information please contact our technical department.

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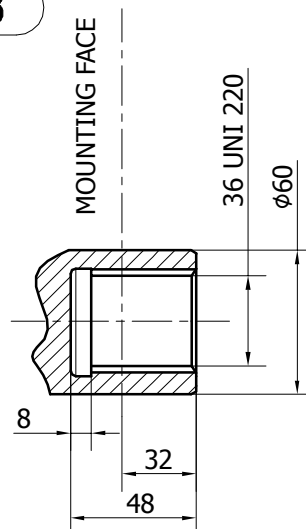
SHAFT CONFIGURATIONS



Available spline billet: **SB3**



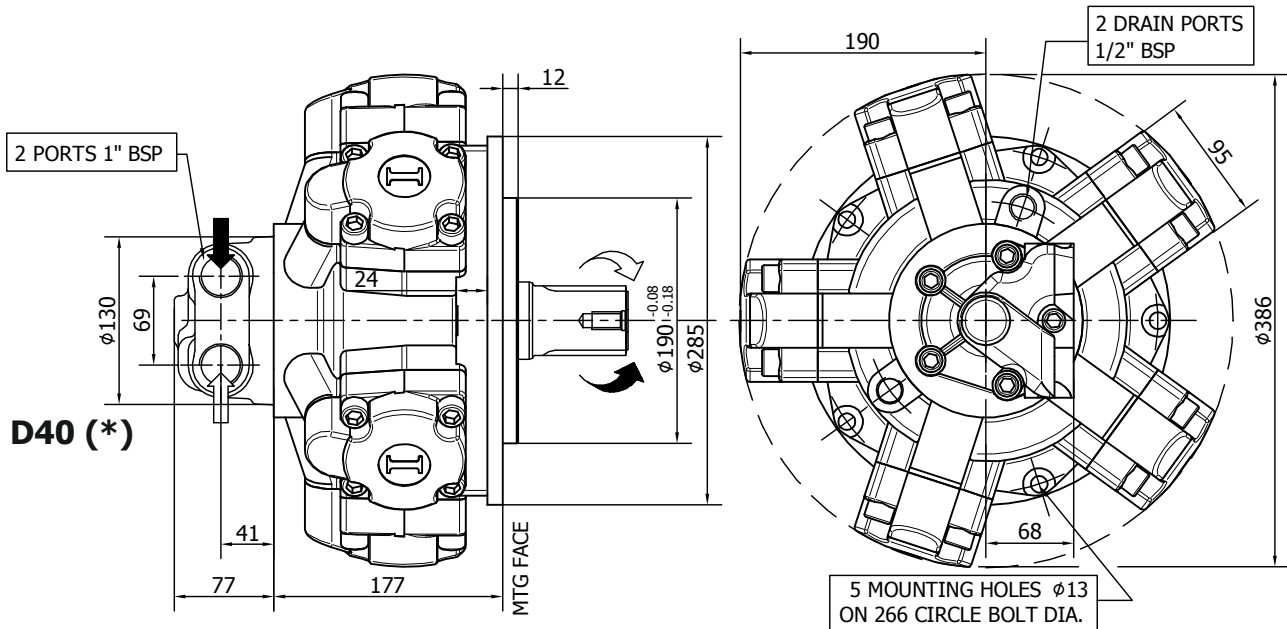
**A3**



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**INSTALLATION DRAWING**

Available distributor flange: **FL2**  
refer to page 156 (distributor fitting D47)



**TECHNICAL DATA**

		<b>350</b>	<b>400</b>	<b>450</b>	<b>500</b>	<b>600</b>
DISPLACEMENT	[cc]	342	390	452	492	594
SPECIFIC TORQUE	[Nm/bar]	5.44	6.2	7.20	7.80	9,46
MAX. CONT. PRESSURE	[bar]	270	270	270	270	270
HYDROSTATIC TEST PRES-SURE	[bar]	420	420	420	420	420
MAX. CONT. SPEED	[rpm]	850	750	650	600	500
PEAK SPEED (***)	[rpm]	950	860	760	690	570
MAX. CONT. POWER (****)	[kW]	80	80	80	80	80
MAX. CONT. POWER WITH FLUSHING	[kW]	120	120	120	120	120
MAX. CASE PRESSURE	[bar]	6	6	6	6	6
DRY WEIGHT	[kg]	68	68	68	68	68
TEMPERATURE RANGE (**)	[°C]	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70

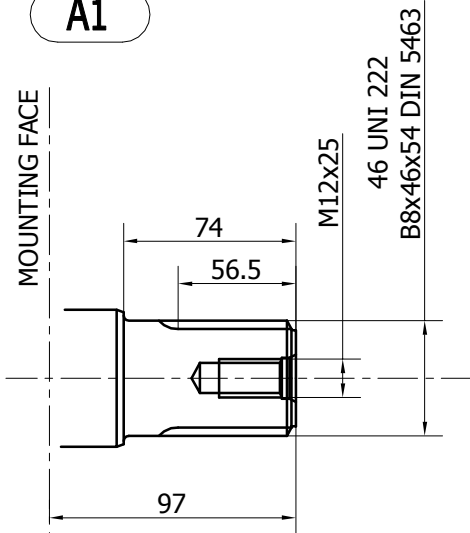
- (\*) The standard distributor (D40) is shown. Please refer to distributors section (pag. 148-149) for different distributor interfaces.
- (\*\*) Please refer to the hydraulic fluid recommendations (pag. 10-11).
- (\*\*\*) Do not exceed maximum continuous power with flushing (see pag. 13).
- (\*\*\*\*) For motor operation with a continuous duty cycle at maximum continuous power the flushing is usually required. For more information please contact our technical department.

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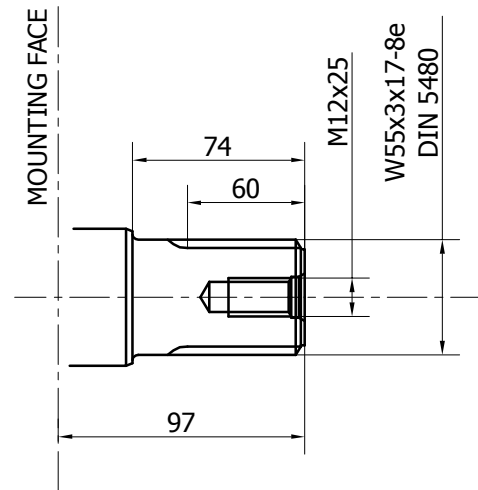
SHAFT CONFIGURATIONS

**A1**

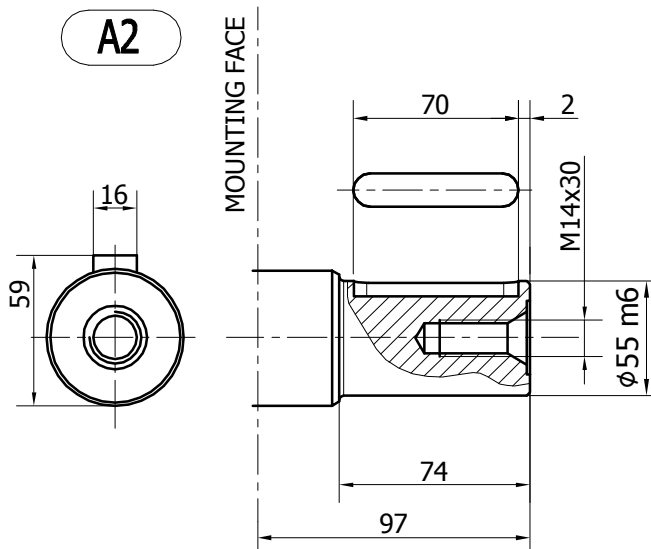


Available spline billet: **SB5**

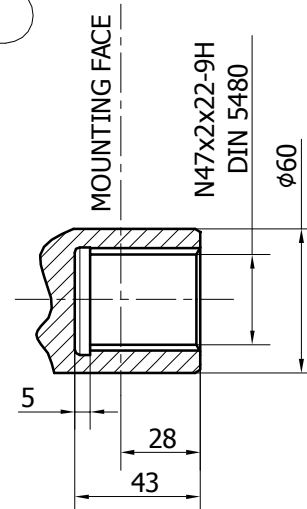
**A11**



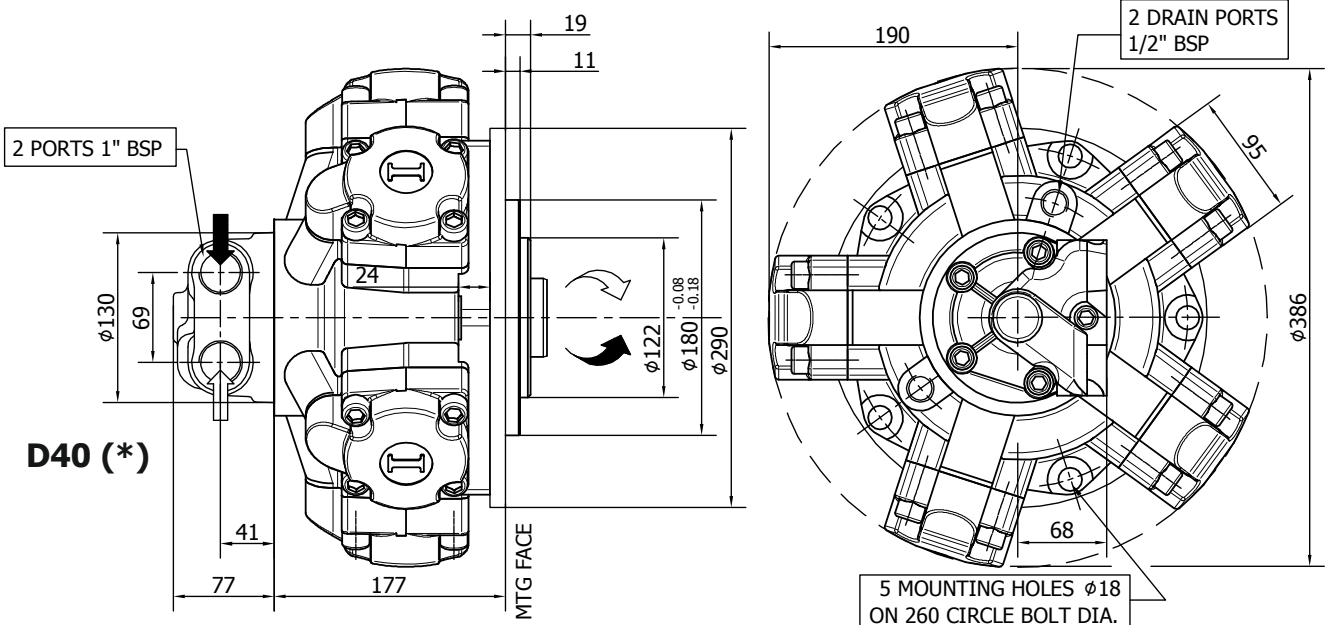
**A2**



**A3**



**INSTALLATION DRAWING**



**TECHNICAL DATA**

		<b>350</b>	<b>400</b>	<b>450</b>	<b>500</b>	<b>600</b>
DISPLACEMENT	[cc]	342	390	452	492	594
SPECIFIC TORQUE	[Nm/bar]	5.44	6.2	7.20	7.80	9,46
MAX. CONT. PRESSURE	[bar]	270	270	270	270	270
HYDROSTATIC TEST PRES-SURE	[bar]	420	420	420	420	420
MAX. CONT. SPEED	[rpm]	850	750	650	600	500
PEAK SPEED (***)	[rpm]	950	860	760	690	570
MAX. CONT. POWER (****)	[kW]	80	80	80	80	80
MAX. CONT. POWER WITH FLUSHING	[kW]	120	120	120	120	120
MAX. CASE PRESSURE	[bar]	6	6	6	6	6
DRY WEIGHT	[kg]	68	68	68	68	68
TEMPERATURE RANGE (**)	[°C]	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70

- (\*) The standard distributor (D40) is shown. Please refer to distributors section (pag. 148-149) for different distributor interfaces.

- (\*\*) Please refer to the hydraulic fluid recommendations (pag. 10-11).

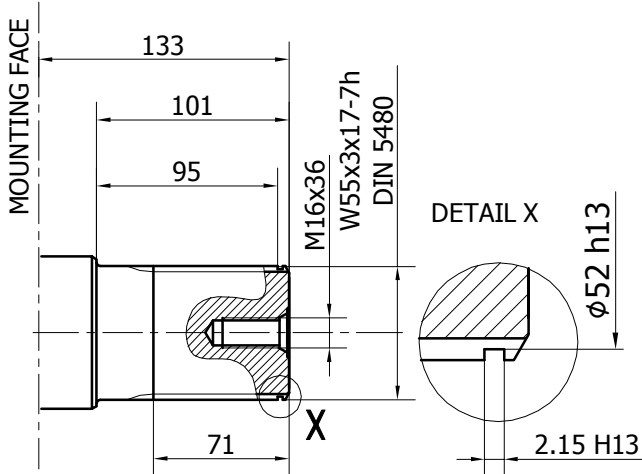
- (\*\*\*) Do not exceed maximum continuous power with flushing (see pag. 13).

- (\*\*\*\*) For motor operation with a continuous duty cycle at maximum continuous power the flushing is usually required. For more information please contact our technical department.

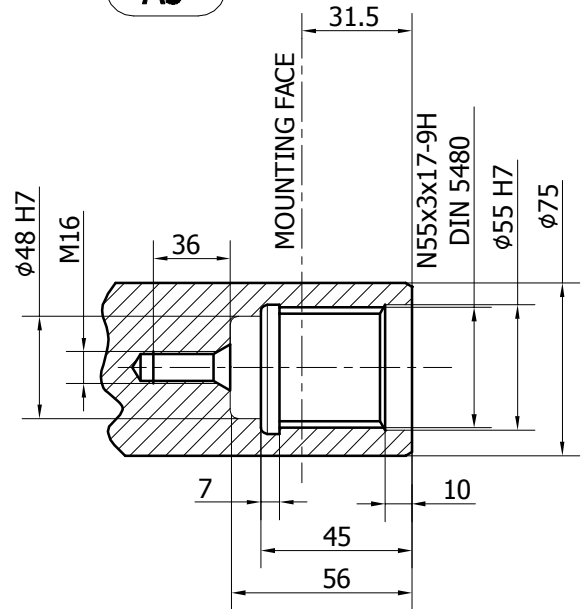
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SHAFT CONFIGURATIONS

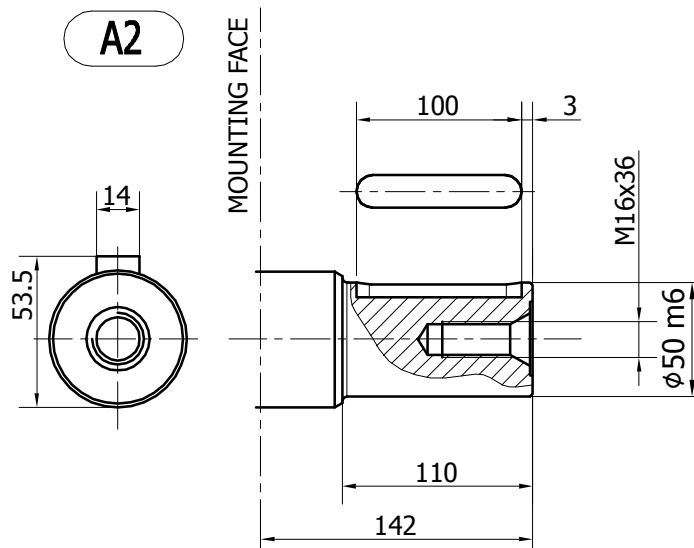
**A11**



**A3**

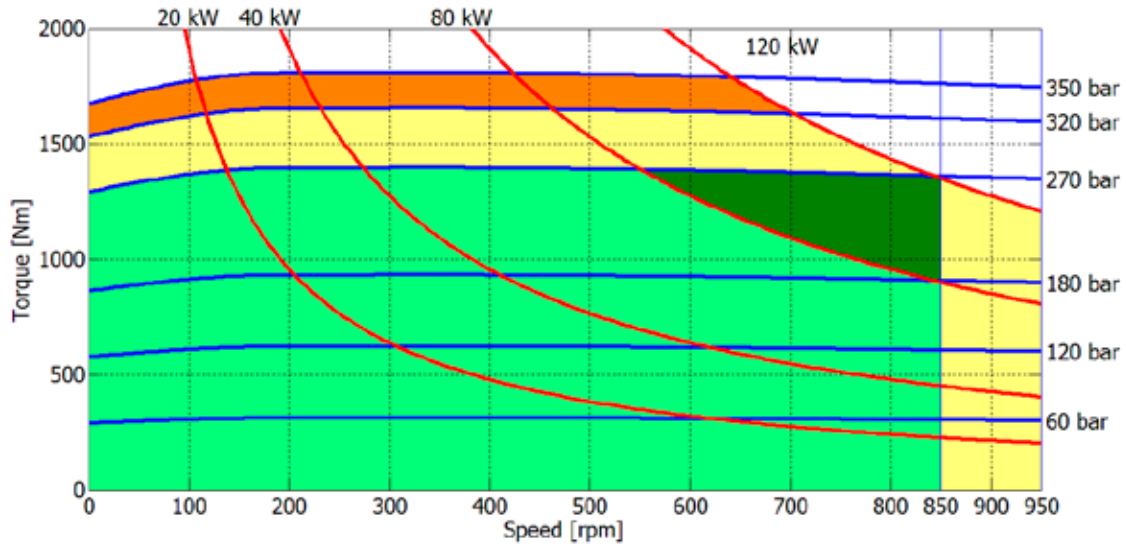


**A2**

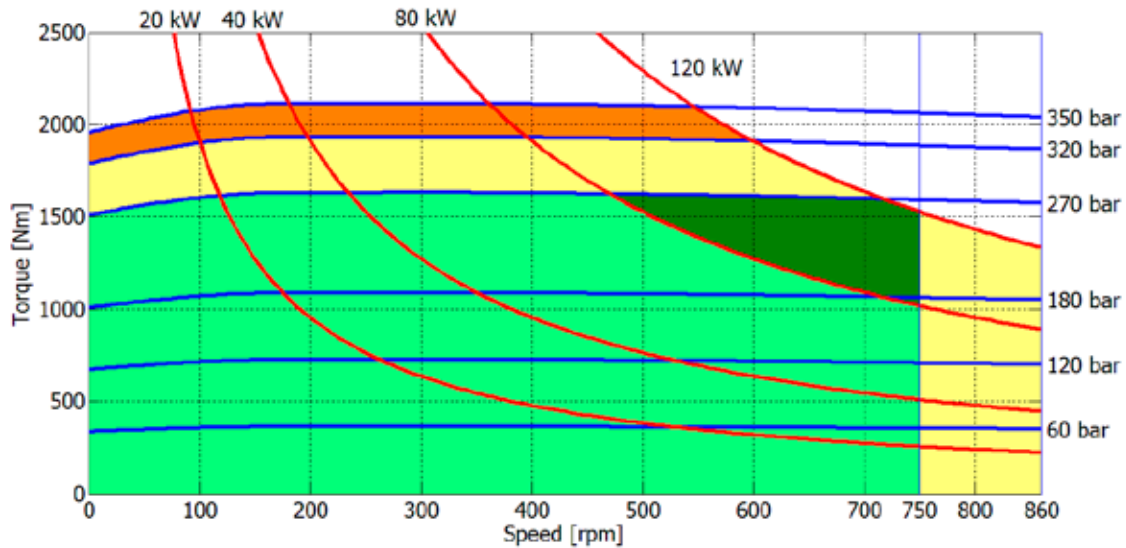


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**350 cc**



**400 cc**

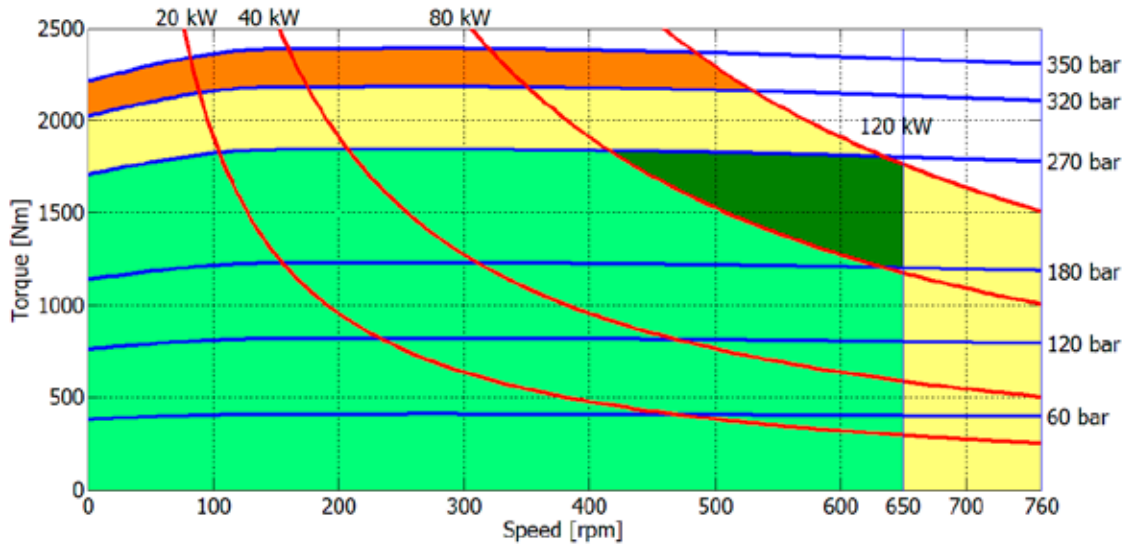


- Continuous operation
- Continuous operation with flushing or intermittent operation (see below for intermittent operation)
- Intermittent operation: permitted for a 15% of duty cycle, for 3 minutes maximum period
- Peak operation: permitted for very short periods (3-5 seconds every 10-15 minutes)

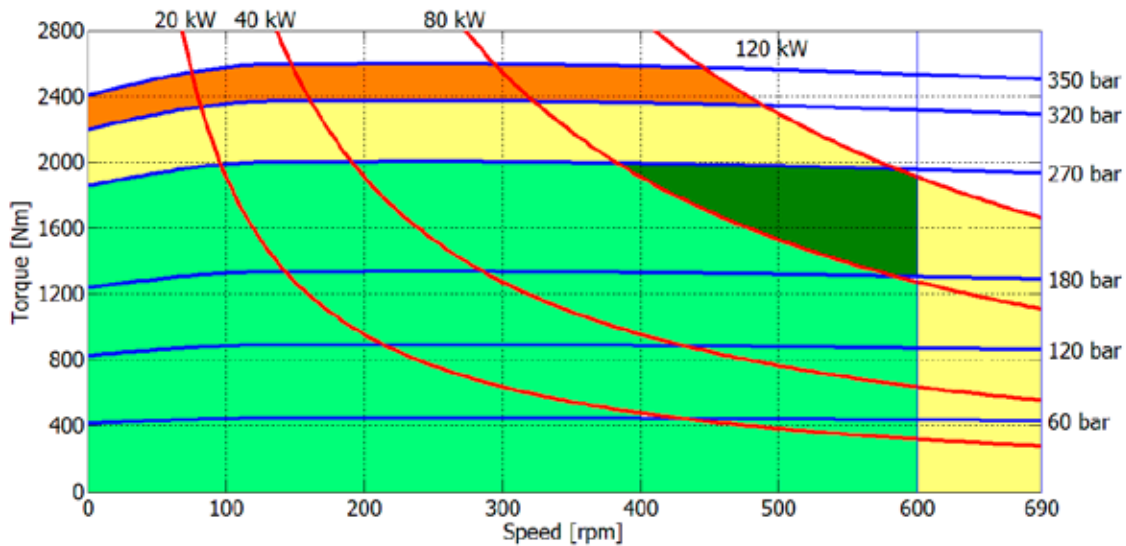
**The above diagrams are referring to the hydraulic motor working with a fluid in ideal conditions (viscosity at 40 cSt).** In case the working temperature increases and viscosity reach values under the recommended values (see hydraulic fluid recommendations) flushing must be performed or ISO oil grade must be changed. The working temperature must not overcome 70 °C.



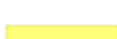

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## 450 cc



## 500 cc

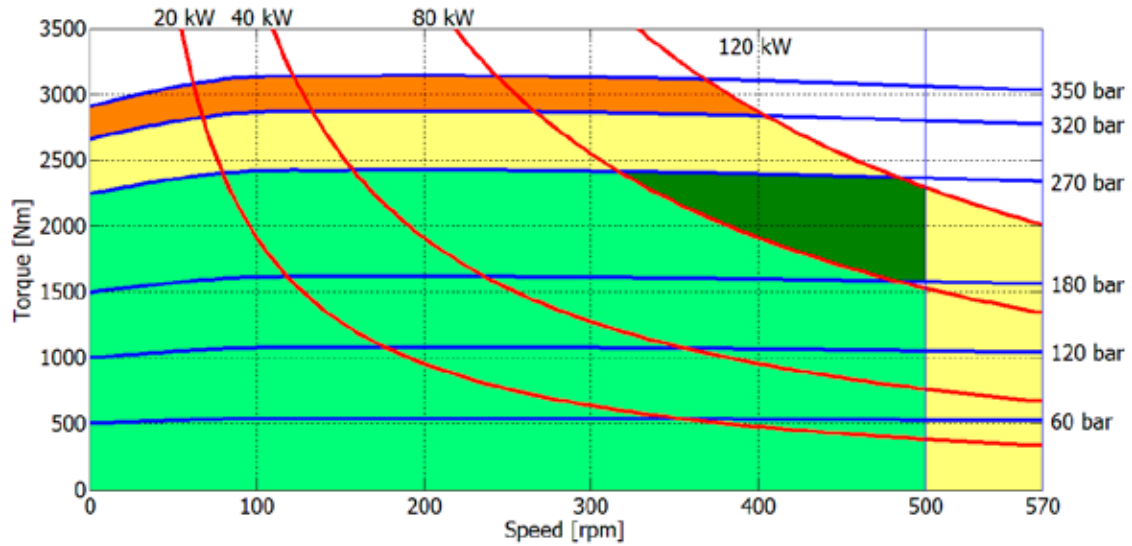


-  Continuous operation
-  Continuous operation with flushing or intermittent operation (see below for intermittent operation)
-  Intermittent operation: permitted for a 15% of duty cycle, for 3 minutes maximum period
-  Peak operation: permitted for very short periods (3-5 seconds every 10-15 minutes)

**The above diagrams are referring to the hydraulic motor working with a fluid in ideal conditions (viscosity at 40 cSt).** In case the working temperature increases and viscosity reach values under the recommended values (see hydraulic fluid recommendations) flushing must be performed or ISO oil grade must be changed. The working temperature must not overcome 70 °C.

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**600 cc**

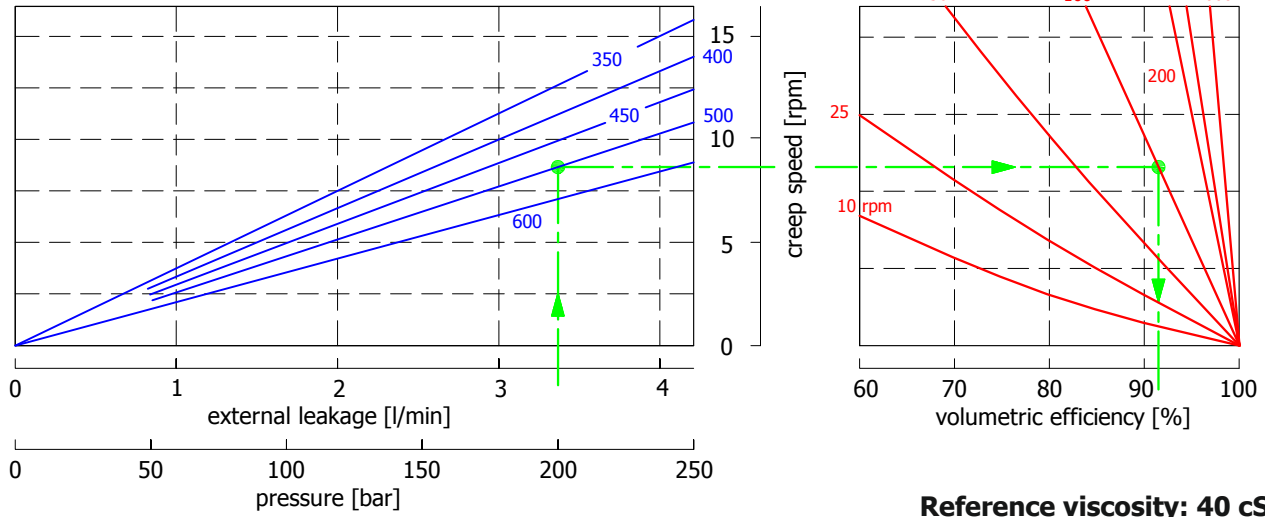


- Continuous operation
- Continuous operation with flushing or intermittent operation (see below for intermittent operation)
- Intermittent operation: permitted for a 15% of duty cycle, for 3 minutes maximum period
- Peak operation: permitted for very short periods (3-5 seconds every 10-15 minutes)

**The above diagrams are referring to the hydraulic motor working with a fluid in ideal conditions (viscosity at 40 cSt).** In case the working temperature increases and viscosity reach values under the recommended values (see hydraulic fluid recommendations) flushing must be performed or ISO oil grade must be changed. The working temperature must not overcome 70 °C.

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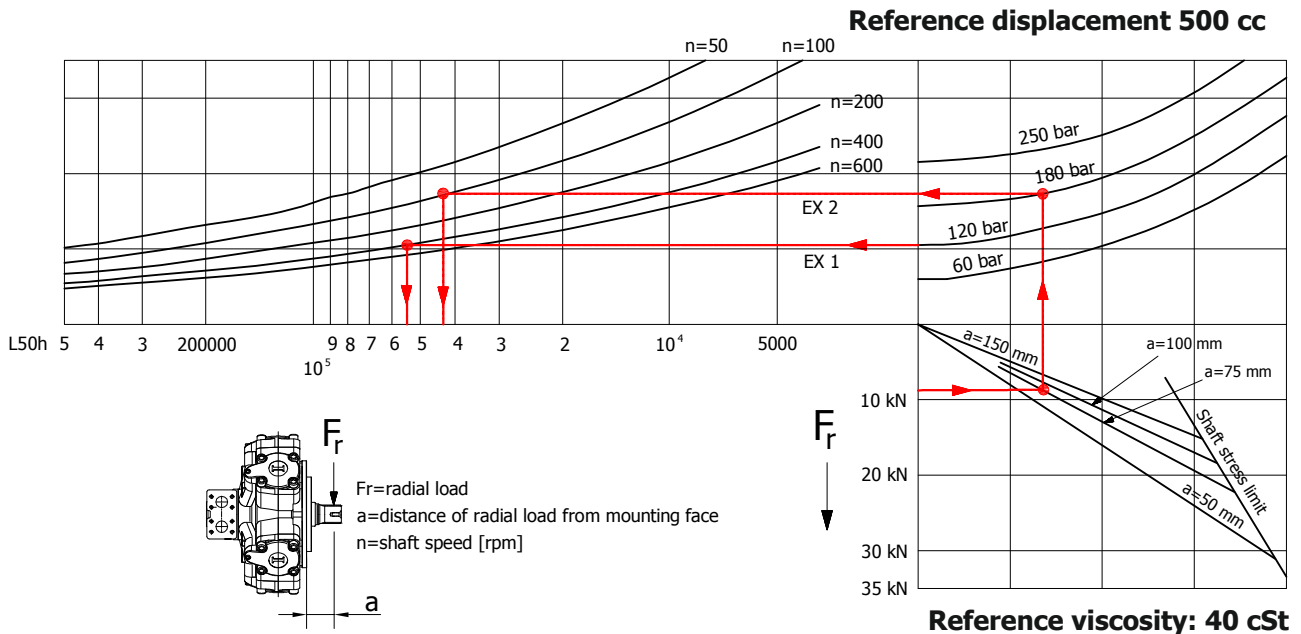
## CREEP SPEED - VOLUMETRIC EFFICIENCY



Example:

We suppose (500 cc):  $p=200$  [bar], we obtain: external leakage 3,3 [l/min], shaft creep speed 8,5 [rpm].  
If we suppose (500 cc):  $p=200$  [bar] and  $n=100$  [rpm] we obtain a volumetric efficiency of 91,5%;

## BEARING LIFE

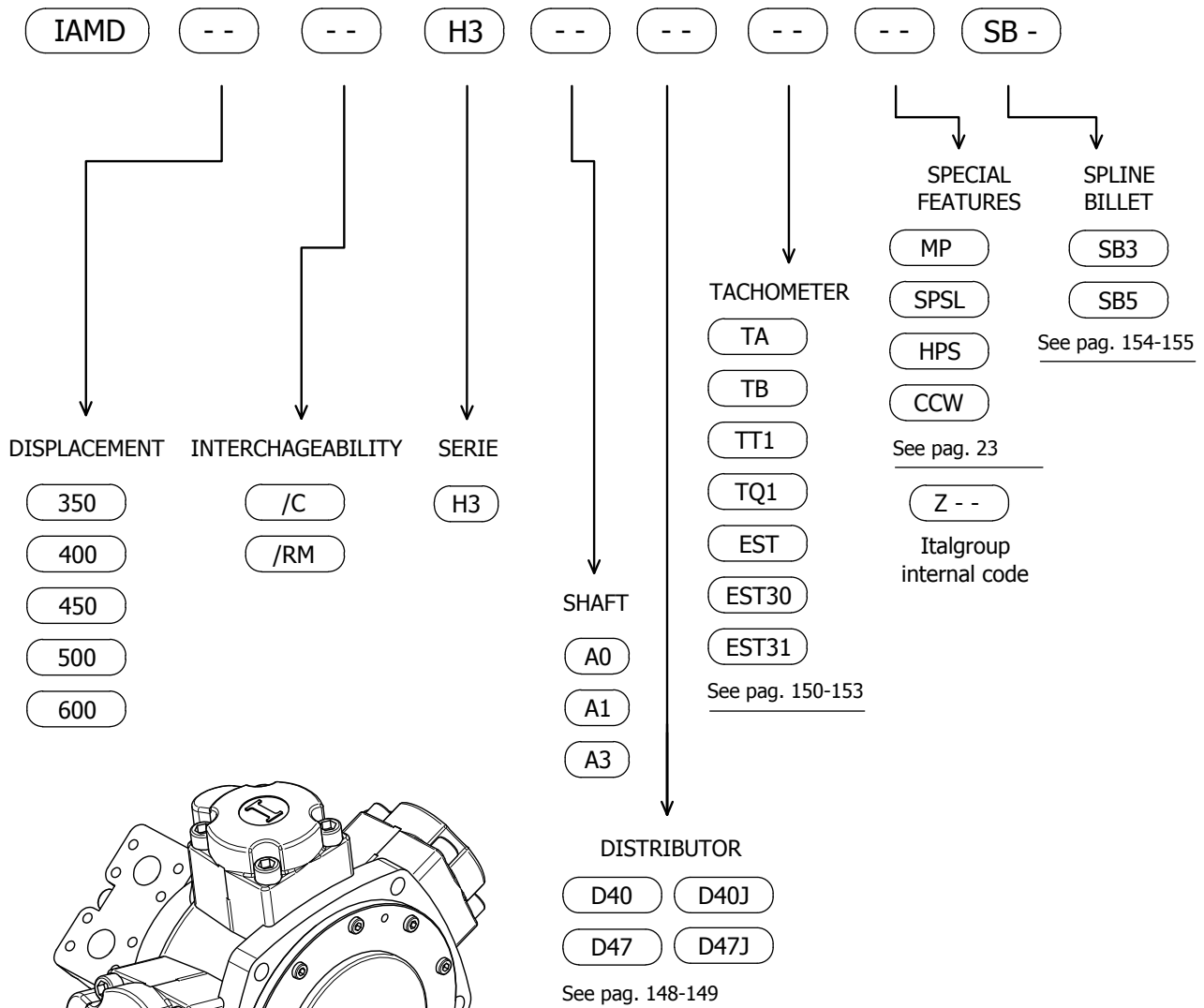


Example:

We suppose (EX1):  $p=120$  [bar],  $n=400$  [rpm]; we obtain an average lifetime of 53000 [h].  
If we suppose (EX2):  $F_r=9$  [kN],  $a=75$  [mm],  $n=100$  [rpm] and  $p=180$  [bar] we obtain an average lifetime of 42000 [h].

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## IAMD H3 - ORDERING CODE



### EXAMPLES:

IAMD 450/C H3 A1 D47  
IAMD 600 H3 A0 D40J EST30 CCW  
IAMD 500/C H3 A1 D40 SB5



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**ITALGROUP SRL**  
**IAMD SERIES - IAMD H4**  
**GENERAL CATALOGUE**

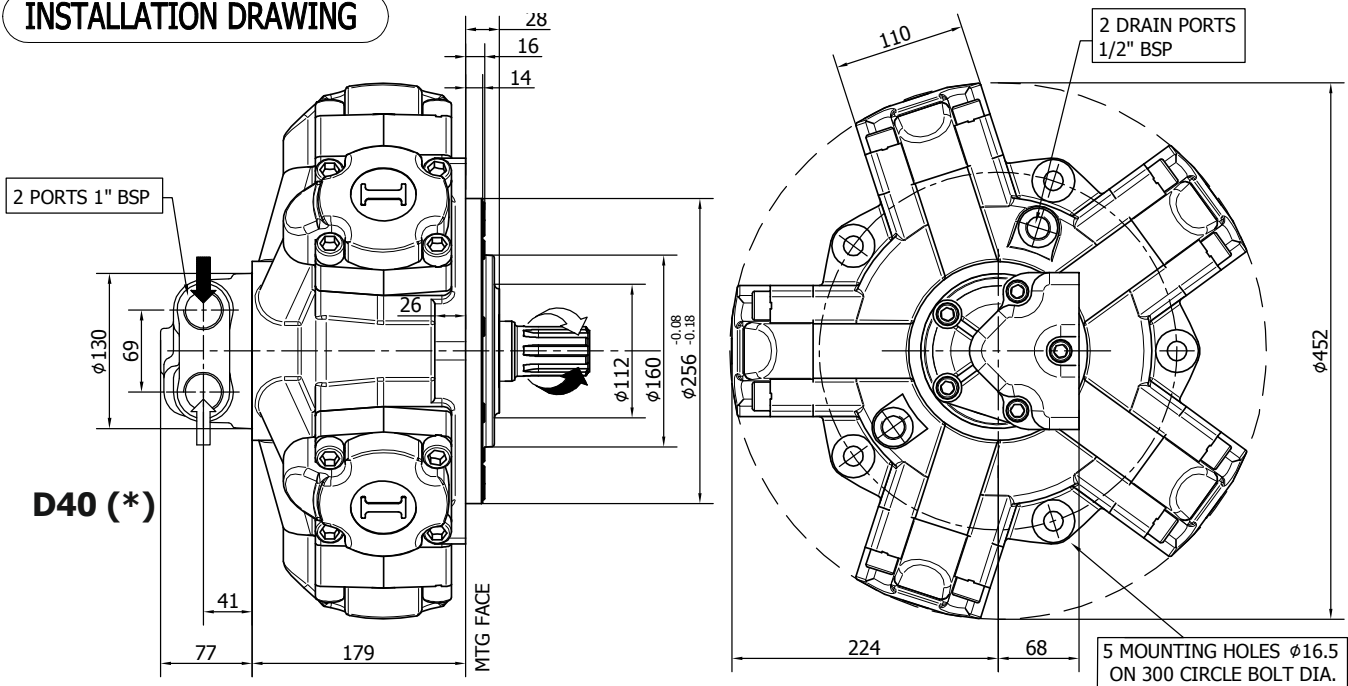
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**INDEX - IAMD H4**

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<u>IAMD H4/B45 - INSTALLATION DRAWINGS</u>	„	52 - 53
<u>IAMD H4/GM4 - INSTALLATION DRAWINGS</u>	„	54 - 55
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<u>IAMD H4 - PERFORMANCE DIAGRAMS</u>	„	58 - 62
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**INSTALLATION DRAWING**



**TECHNICAL DATA**

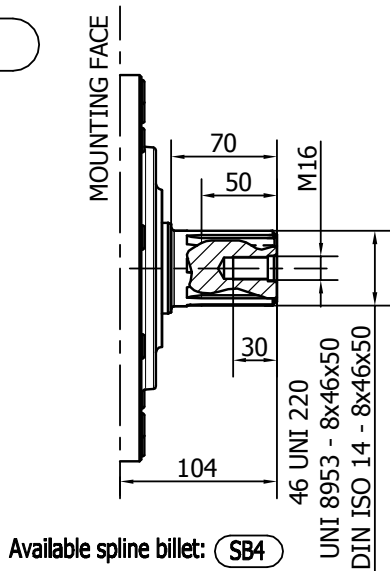
		<b>500</b>	<b>600</b>	<b>700</b>	<b>800</b>	<b>850</b>	<b>900</b>	<b>1000</b>	<b>1250</b>
DISPLACEMENT	[cc]	493	584	714	792	847	904	992	1247
SPECIFIC TORQUE	[Nm/bar]	7.8	9.3	11.4	12.6	13.5	14.4	15.8	19.8
MAX. CONT. PRESSURE	[bar]	270	270	270	270	270	270	270	200
HYDROSTATIC TEST PRESSURE	[bar]	420	420	420	420	420	420	420	420
MAX. CONT. SPEED	[rpm]	700	700	500	450	420	400	355	280
PEAK SPEED (***)	[rpm]	800	800	580	520	490	460	405	320
MAX. CONT. POWER (****)	[kW]	120	120	120	120	120	120	120	120
MAX. CONT. POWER WITH FLUSHING	[kW]	150	150	150	150	150	150	150	150
MAX. CASE PRESSURE	[bar]	6	6	6	6	6	6	6	6
DRY WEIGHT	[kg]	92	92	92	92	92	92	92	92
TEMPERATURE RANGE (**)	[°C]	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70

- (\*) The standard distributor (D40) is shown. Please refer to distributors section (pag. 148-149) for different distributor interfaces.
- (\*\*) Please refer to the hydraulic fluid recommendations (pag. 10-11).
- (\*\*\*) Do not exceed maximum continuous power with flushing (see pag. 13).
- (\*\*\*\*) For motor operation with a continuous duty cycle at maximum continuous power the flushing is usually required. For more information please contact our technical department.

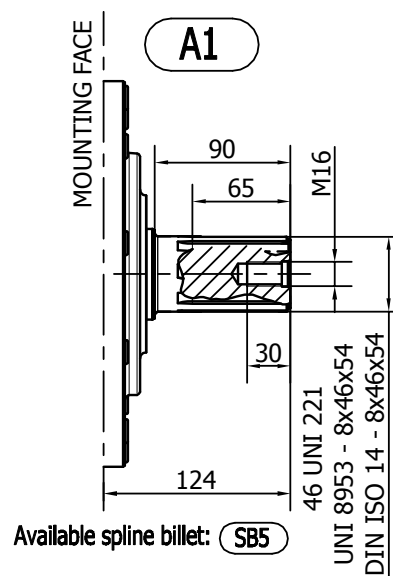
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SHAFT CONFIGURATIONS

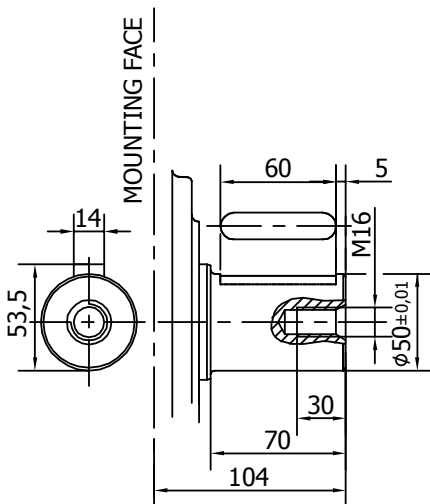
**A0**



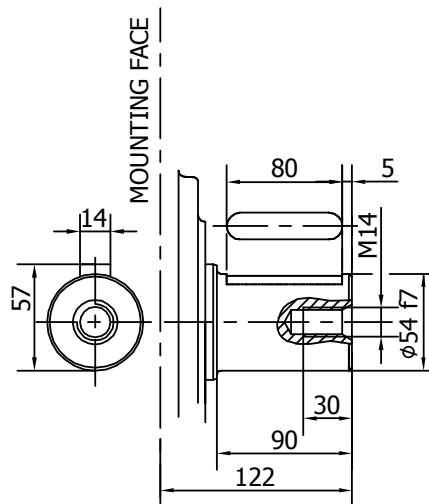
**A1**



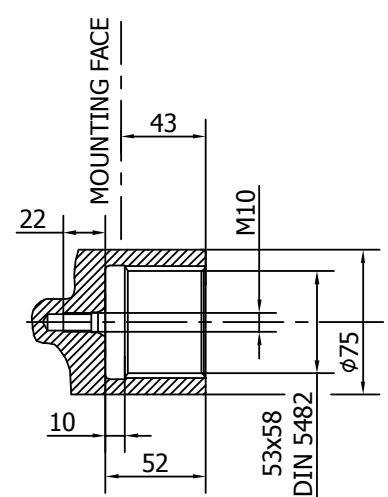
**A2**



**A21**



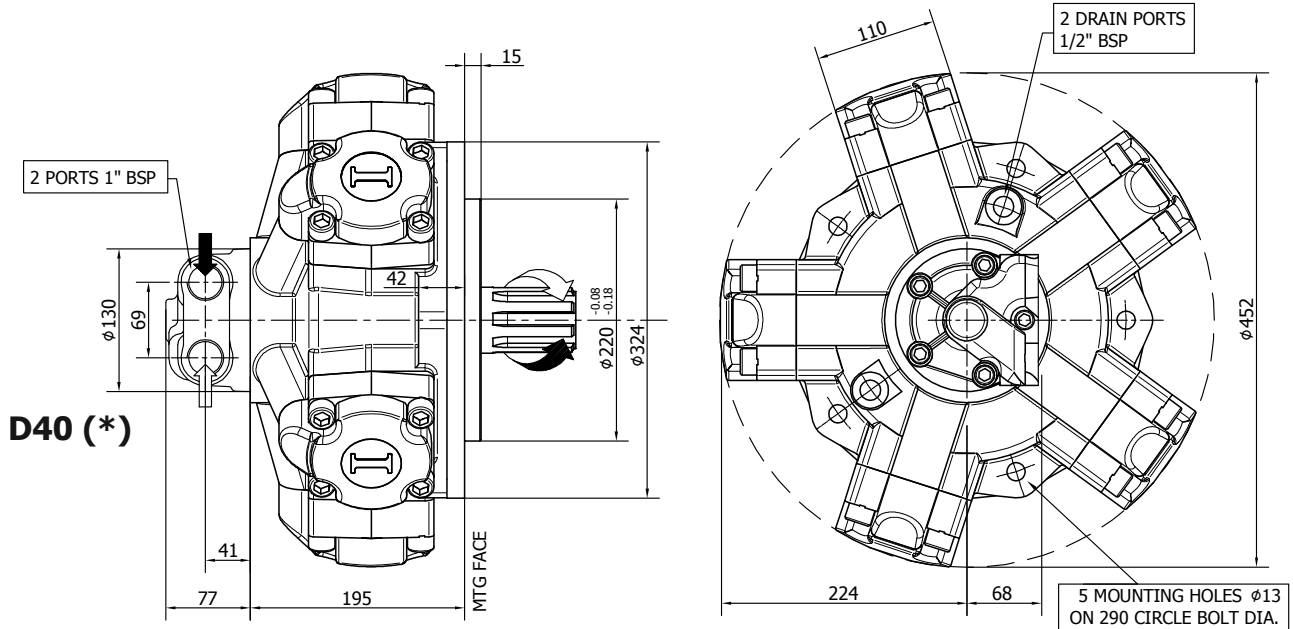
**A3**



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**INSTALLATION DRAWING**

Available distributor flange: **FL2**  
refer to page 156 (distributor fitting D47)



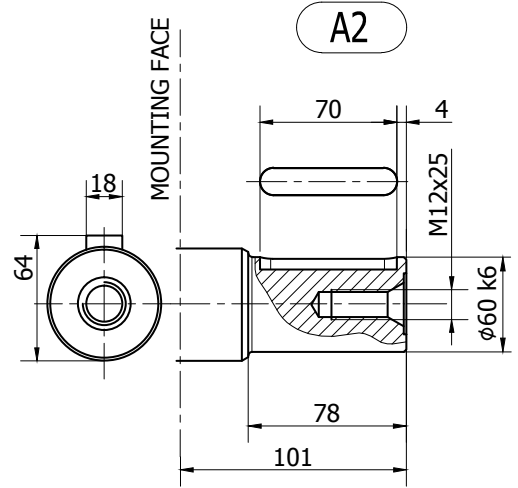
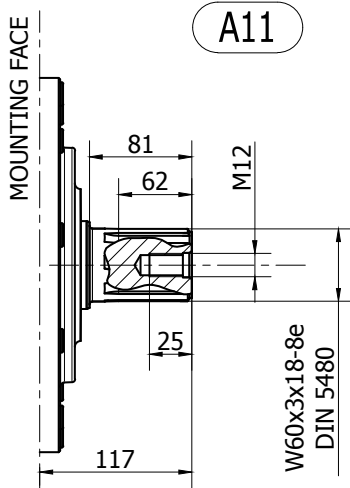
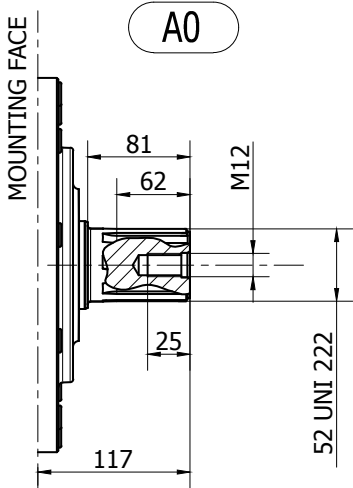
**TECHNICAL DATA**

		<b>500</b>	<b>600</b>	<b>700</b>	<b>800</b>	<b>850</b>	<b>900</b>	<b>1000</b>	<b>1250</b>
DISPLACEMENT	[cc]	493	584	714	792	847	904	992	1247
SPECIFIC TORQUE	[Nm/bar]	7.8	9.3	11.4	12.6	13.5	14.4	15.8	19.8
MAX. CONT. PRESSURE	[bar]	270	270	270	270	270	270	270	200
HYDROSTATIC TEST PRESSURE	[bar]	420	420	420	420	420	420	420	420
MAX. CONT. SPEED	[rpm]	700	700	500	450	420	400	355	280
PEAK SPEED (***)	[rpm]	800	800	580	520	490	460	405	320
MAX. CONT. POWER (****)	[kW]	120	120	120	120	120	120	120	120
MAX. CONT. POWER WITH FLUSHING	[kW]	150	150	150	150	150	150	150	150
MAX. CASE PRESSURE	[bar]	6	6	6	6	6	6	6	6
DRY WEIGHT	[kg]	92	92	92	92	92	92	92	92
TEMPERATURE RANGE (**)	[°C]	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70

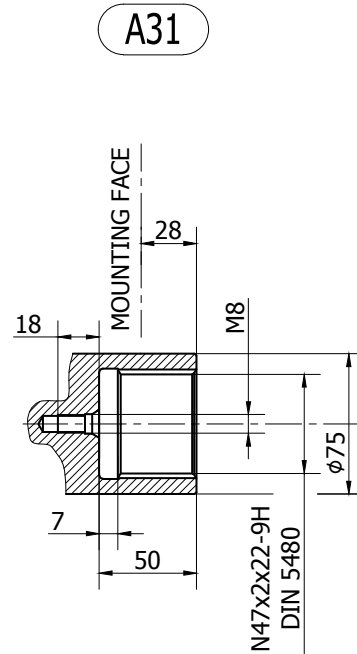
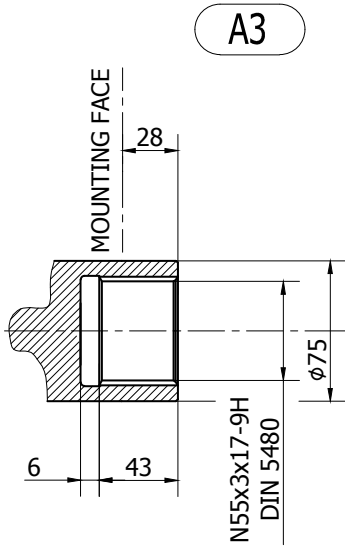
- (\*) The standard distributor (D40) is shown. Please refer to distributors section (pag. 148-149) for different distributor interfaces.
- (\*\*) Please refer to the hydraulic fluid recommendations (pag. 10-11).
- (\*\*\*) Do not exceed maximum continuous power with flushing (see pag. 13).
- (\*\*\*\*) For motor operation with a continuous duty cycle at maximum continuous power the flushing is usually required. For more information please contact our technical department.

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SHAFT CONFIGURATIONS

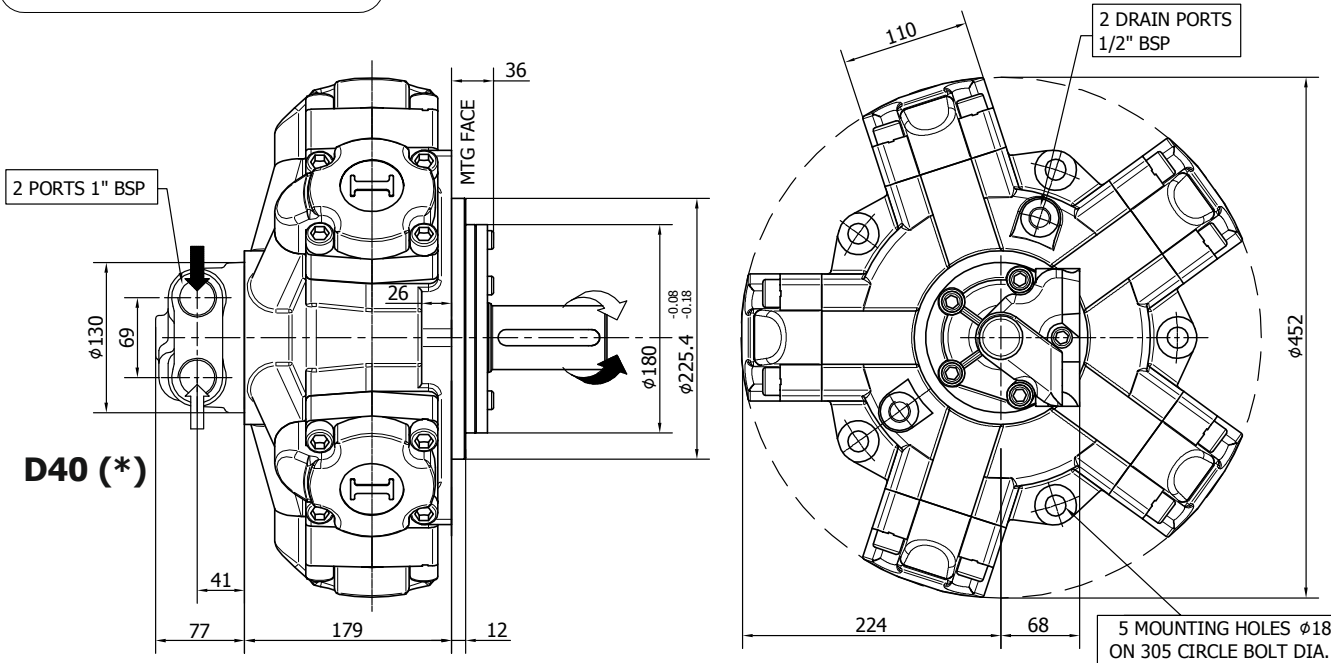


Available spline billet: (SB16)



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**INSTALLATION DRAWING**



**TECHNICAL DATA**

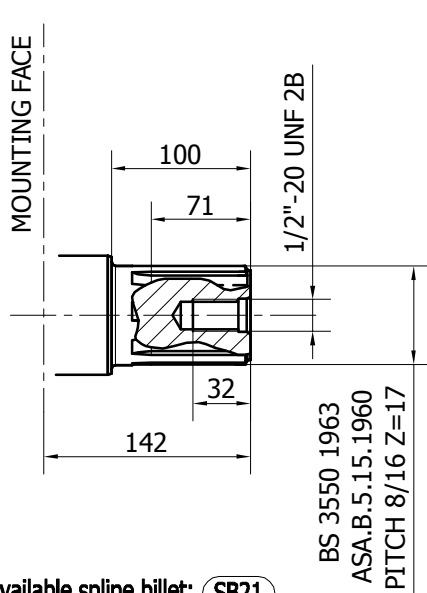
		<b>500</b>	<b>600</b>	<b>700</b>	<b>800</b>	<b>850</b>	<b>900</b>	<b>1000</b>	<b>1250</b>
DISPLACEMENT	[cc]	493	584	714	792	847	904	992	1247
SPECIFIC TORQUE	[Nm/bar]	7.8	9.3	11.4	12.6	13.5	14.4	15.8	19.8
MAX. CONT. PRESSURE	[bar]	270	270	270	270	270	270	270	200
HYDROSTATIC TEST PRESSURE	[bar]	420	420	420	420	420	420	420	420
MAX. CONT. SPEED	[rpm]	700	700	500	450	420	400	355	280
PEAK SPEED (***)	[rpm]	800	800	580	520	490	460	405	320
MAX. CONT. POWER (****)	[kW]	120	120	120	120	120	120	120	120
MAX. CONT. POWER WITH FLUSHING	[kW]	150	150	150	150	150	150	150	150
MAX. CASE PRESSURE	[bar]	6	6	6	6	6	6	6	6
DRY WEIGHT	[kg]	92	92	92	92	92	92	92	92
TEMPERATURE RANGE (**)	[°C]	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70

- (\*) The standard distributor (D40) is shown. Please refer to distributors section (pag. 148-149) for different distributor interfaces.
- (\*\*) Please refer to the hydraulic fluid recommendations (pag. 10-11).
- (\*\*\*) Do not exceed maximum continuous power with flushing (see pag. 13).
- (\*\*\*\*) For motor operation with a continuous duty cycle at maximum continuous power the flushing is usually required. For more information please contact our technical department.

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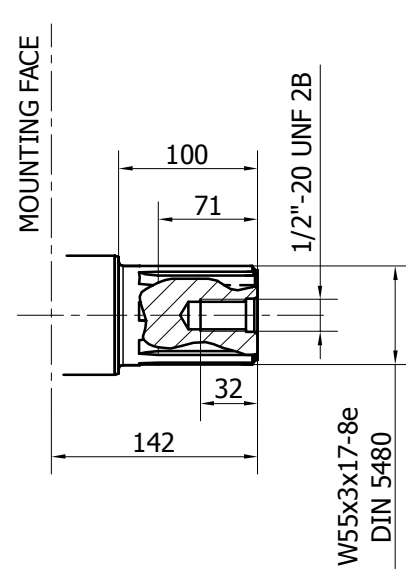
SHAFT CONFIGURATIONS

A1

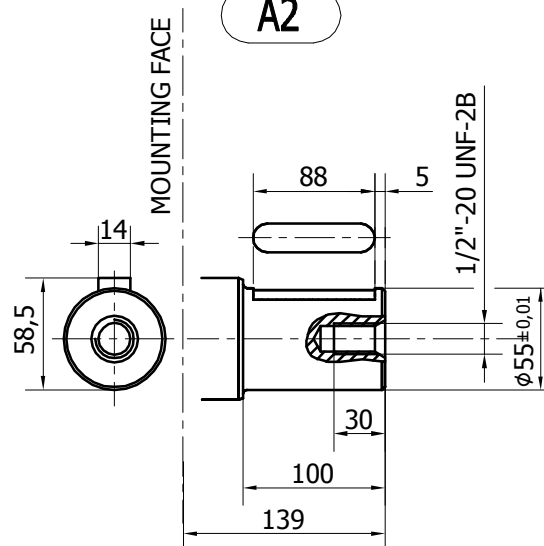


Available spline billet: **SB21**

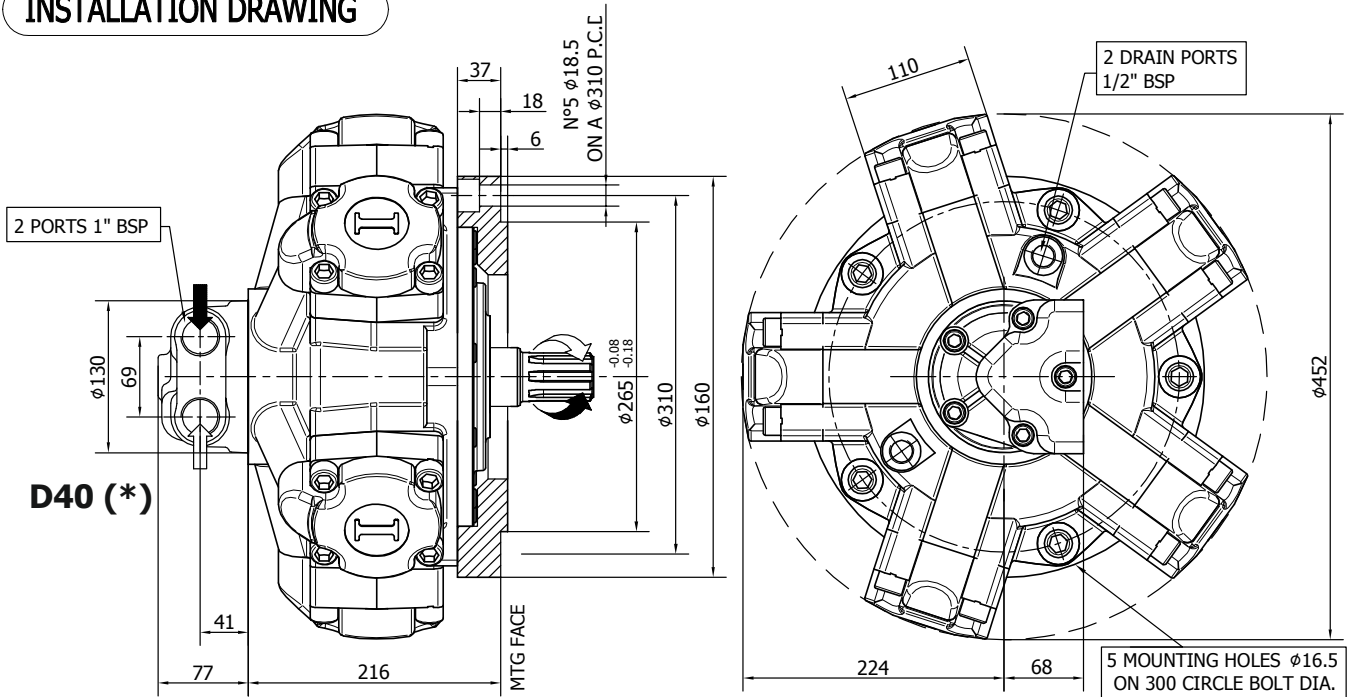
A11



A2



**INSTALLATION DRAWING**



**TECHNICAL DATA**

		<b>500</b>	<b>600</b>	<b>700</b>	<b>800</b>	<b>850</b>	<b>900</b>	<b>1000</b>	<b>1250</b>
DISPLACEMENT	[cc]	493	584	714	792	847	904	992	1247
SPECIFIC TORQUE	[Nm/bar]	7.8	9.3	11.4	12.6	13.5	14.4	15.8	19.8
MAX. CONT. PRESSURE	[bar]	270	270	270	270	270	270	270	200
HYDROSTATIC TEST PRESSURE	[bar]	420	420	420	420	420	420	420	420
MAX. CONT. SPEED	[rpm]	700	700	500	450	420	400	355	280
PEAK SPEED (***)	[rpm]	800	800	580	520	490	460	405	320
MAX. CONT. POWER (****)	[kW]	120	120	120	120	120	120	120	120
MAX. CONT. POWER WITH FLUSHING	[kW]	150	150	150	150	150	150	150	150
MAX. CASE PRESSURE	[bar]	6	6	6	6	6	6	6	6
DRY WEIGHT	[kg]	92	92	92	92	92	92	92	92
TEMPERATURE RANGE (**)	[°C]	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70

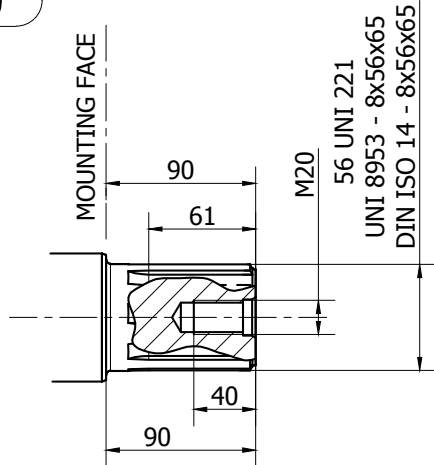
- (\*) The standard distributor (D40) is shown. Please refer to distributors section (pag. 148-149) for different distributor interfaces.
- (\*\*) Please refer to the hydraulic fluid recommendations (pag. 10-11).
- (\*\*\*) Do not exceed maximum continuous power with flushing (see pag. 13).
- (\*\*\*\*) For motor operation with a continuous duty cycle at maximum continuous power the flushing is usually required. For more information please contact our technical department.

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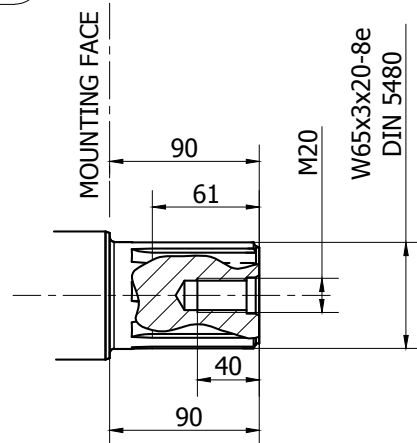
SHAFT CONFIGURATIONS

A0



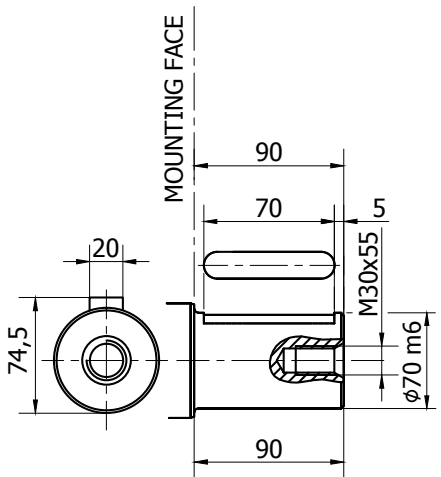
Available spline billet: (SB17)

A1

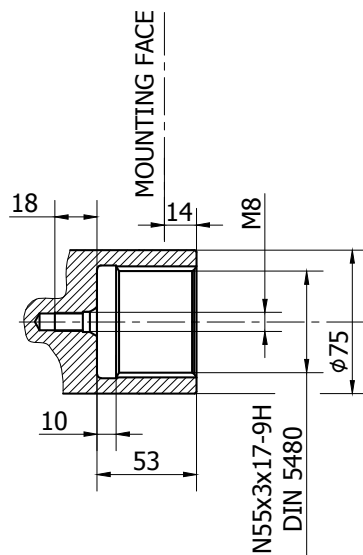


Available spline billet: (SB23)

A2

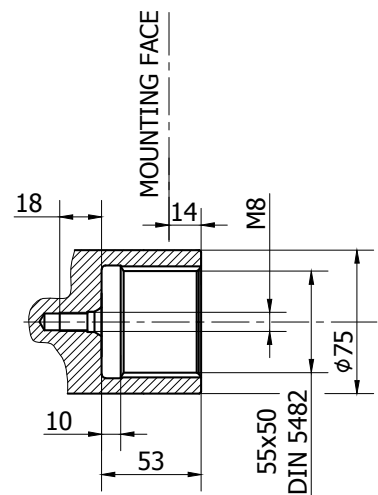


A3



N55x3x17-9H  
DIN 5480

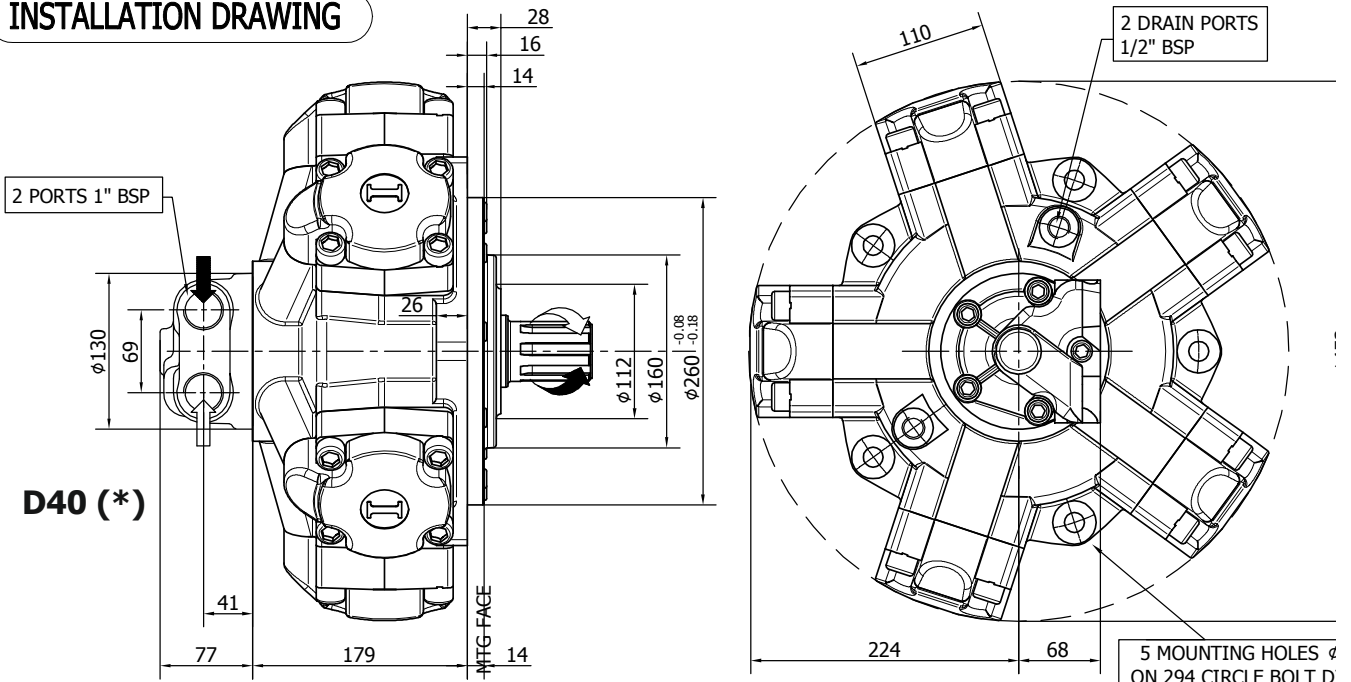
A31



55x50  
DIN 5482

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**INSTALLATION DRAWING**



**TECHNICAL DATA**

		<b>500</b>	<b>600</b>	<b>700</b>	<b>800</b>	<b>850</b>	<b>900</b>	<b>1000</b>	<b>1250</b>
DISPLACEMENT	[cc]	493	584	714	792	847	904	992	1247
SPECIFIC TORQUE	[Nm/bar]	7.8	9.3	11.4	12.6	13.5	14.4	15.8	19.8
MAX. CONT. PRESSURE	[bar]	270	270	270	270	270	270	270	200
HYDROSTATIC TEST PRESSURE	[bar]	420	420	420	420	420	420	420	420
MAX. CONT. SPEED	[rpm]	700	700	500	450	420	400	355	280
PEAK SPEED (***)	[rpm]	800	800	580	520	490	460	405	320
MAX. CONT. POWER (****)	[kW]	120	120	120	120	120	120	120	120
MAX. CONT. POWER WITH FLUSHING	[kW]	150	150	150	150	150	150	150	150
MAX. CASE PRESSURE	[bar]	6	6	6	6	6	6	6	6
DRY WEIGHT	[kg]	92	92	92	92	92	92	92	92
TEMPERATURE RANGE (**)	[°C]	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70

- (\*) The standard distributor (D40) is shown. Please refer to distributors section (pag. 148-149) for different distributor interfaces.

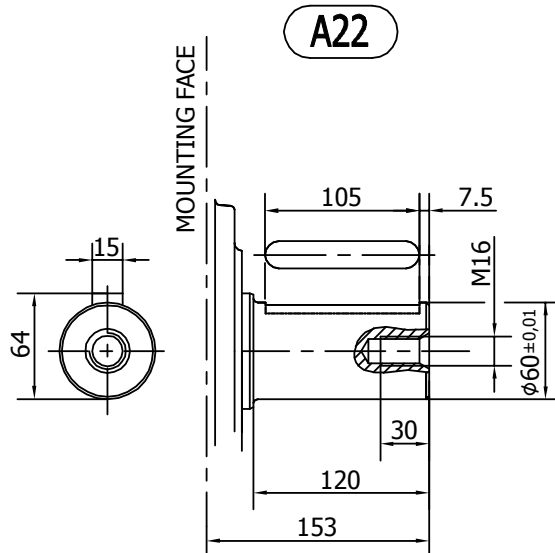
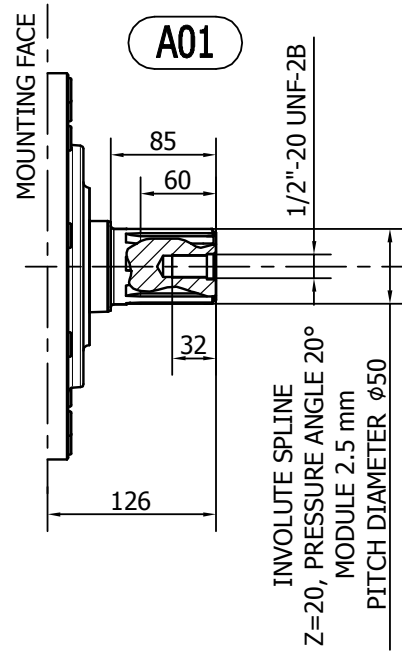
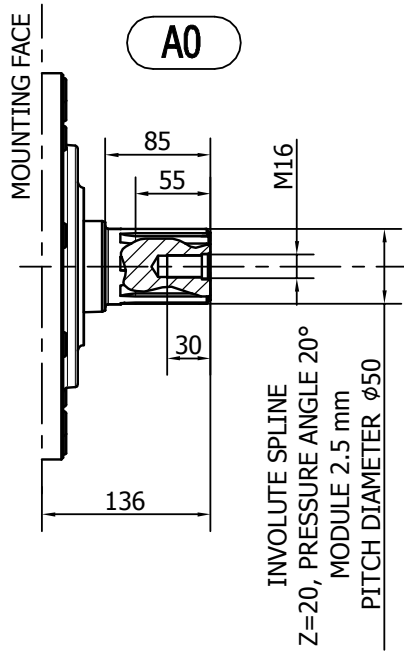
- (\*\*) Please refer to the hydraulic fluid recommendations (pag. 10-11).

- (\*\*\*) Do not exceed maximum continuous power with flushing (see pag. 13).

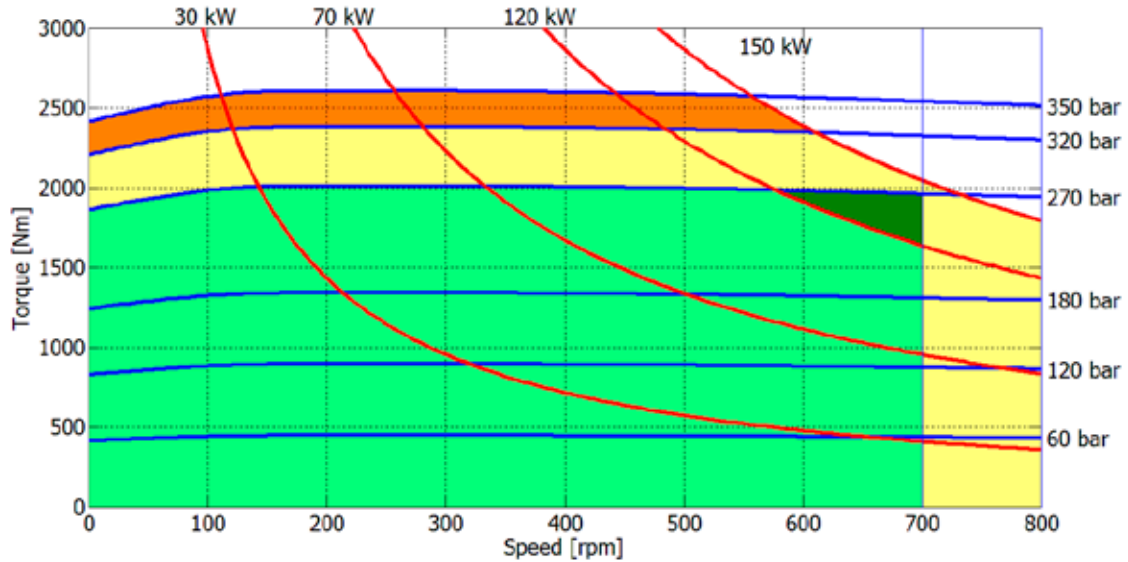
- (\*\*\*\*) For motor operation with a continuous duty cycle at maximum continuous power the flushing is usually required. For more information please contact our technical department.

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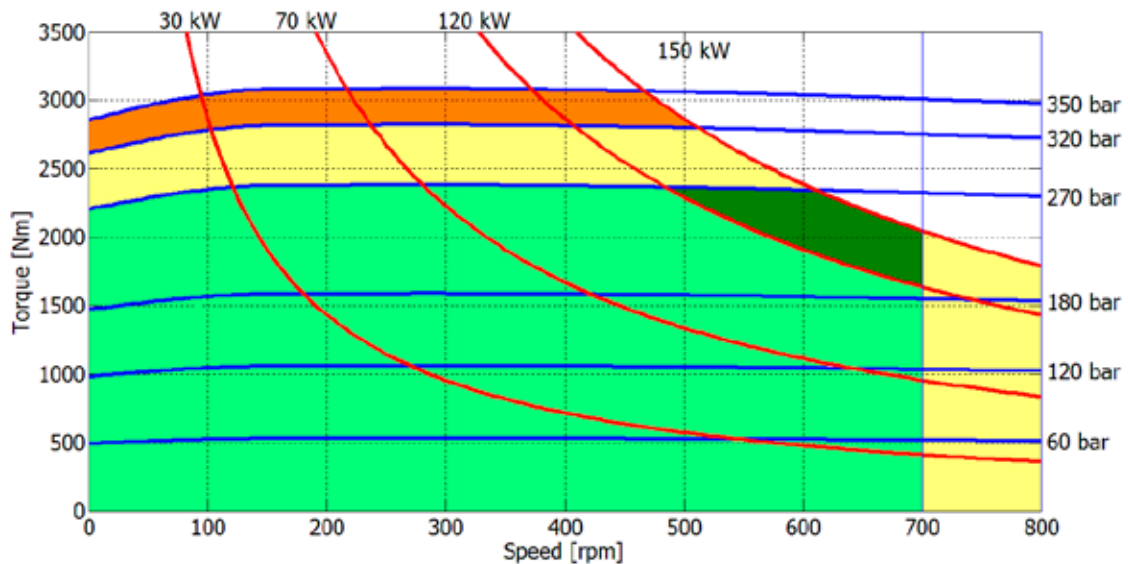
SHAFT CONFIGURATIONS



**500 cc**



**600 cc**



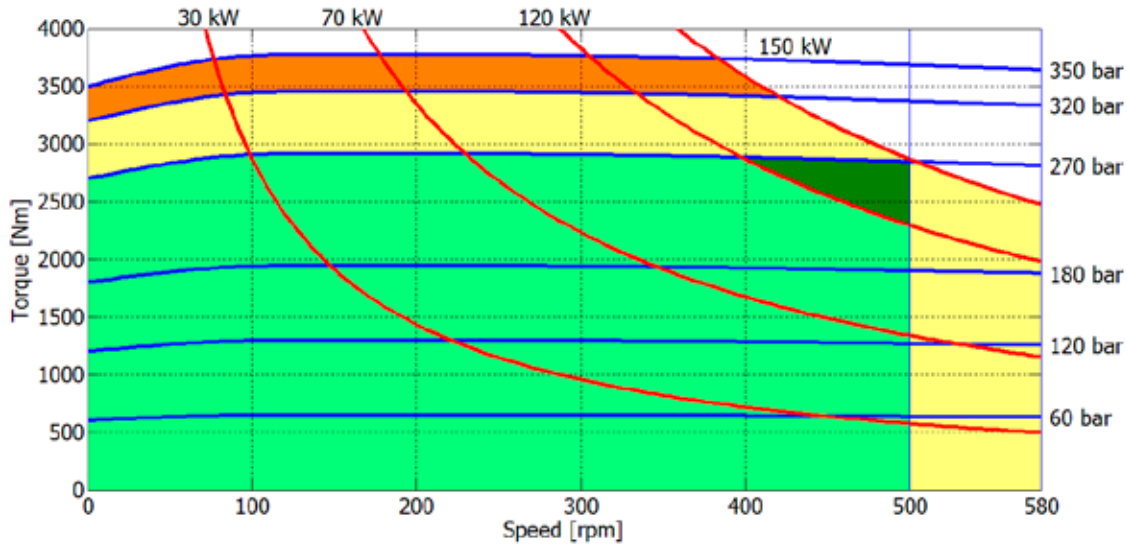
- Continuous operation
- Continuous operation with flushing or intermittent operation (see below for intermittent operation)
- Intermittent operation: permitted for a 15% of duty cycle, for 3 minutes maximum period
- Peak operation: permitted for very short periods (3-5 seconds every 10-15 minutes)

**The above diagrams are referring to the hydraulic motor working with a fluid in ideal conditions (viscosity at 40 cSt).** In case the working temperature increases and viscosity reach values under the recommended values (see hydraulic fluid recommendations) flushing must be performed or ISO oil grade must be changed. The working temperature must not overcome 70 °C.

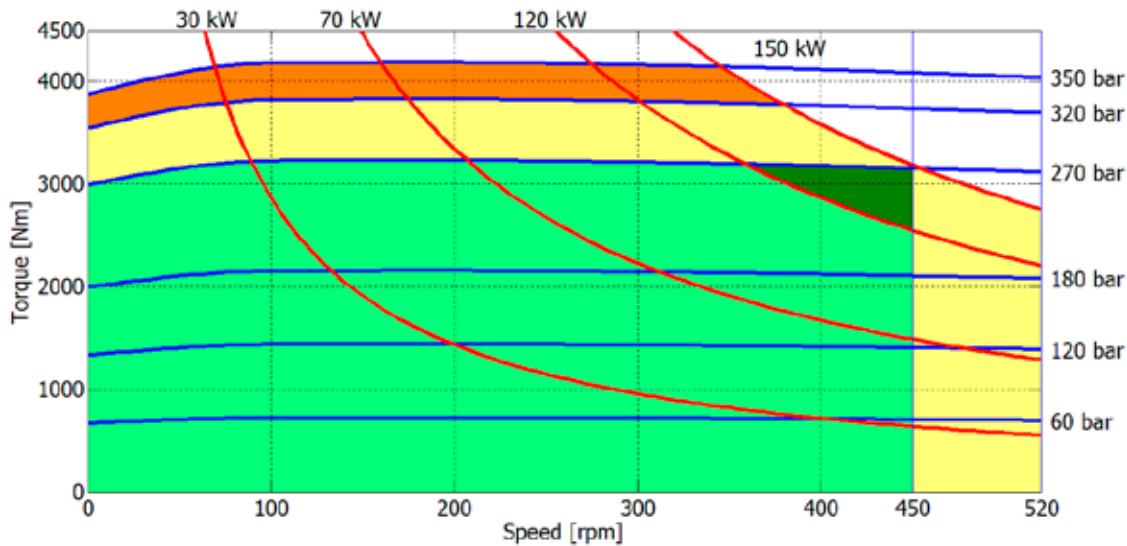
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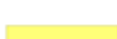

# IAMD H4 - PERFORMANCE DIAGRAMS

## 700 cc



## 800 cc

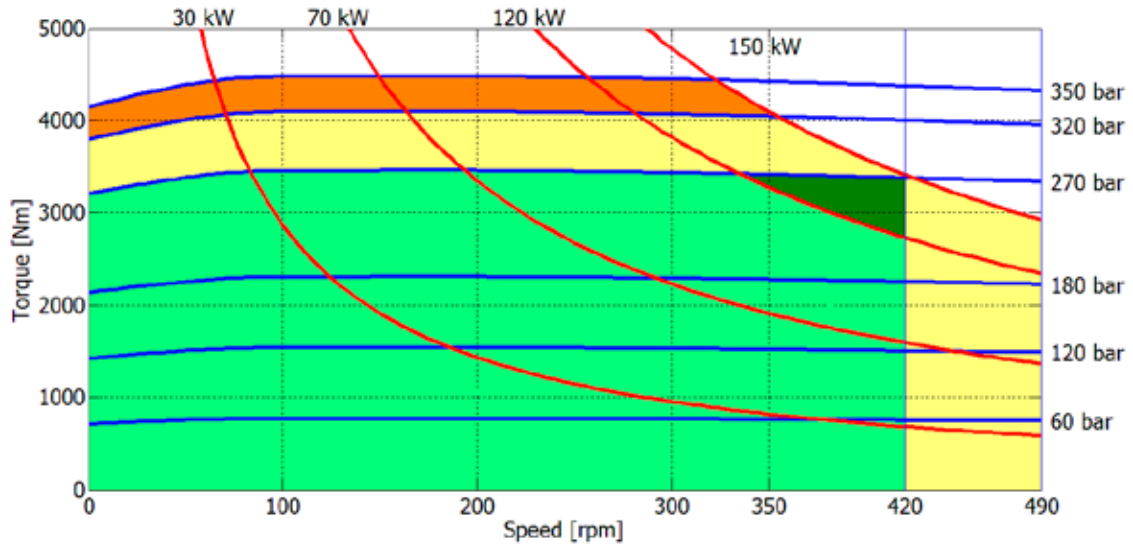


-  Continuous operation
-  Continuous operation with flushing or intermittent operation (see below for intermittent operation)
-  Intermittent operation: permitted for a 15% of duty cycle, for 3 minutes maximum period
-  Peak operation: permitted for very short periods (3-5 seconds every 10-15 minutes)

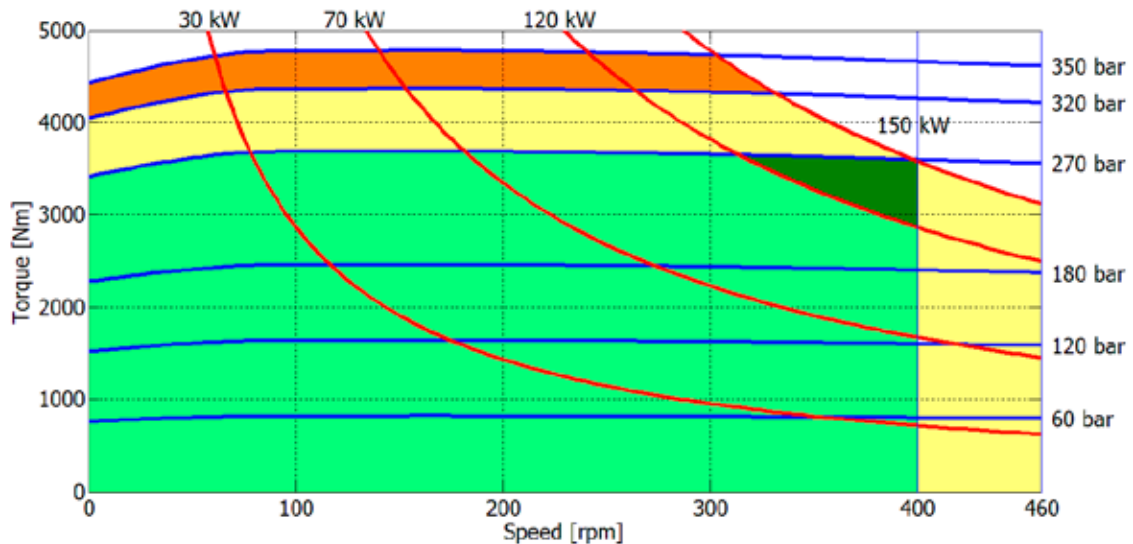
**The above diagrams are referring to the hydraulic motor working with a fluid in ideal conditions (viscosity at 40 cSt).** In case the working temperature increases and viscosity reach values under the recommended values (see hydraulic fluid recommendations) flushing must be performed or ISO oil grade must be changed. The working temperature must not overcome 70 °C.

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**850 cc**



**900 cc**



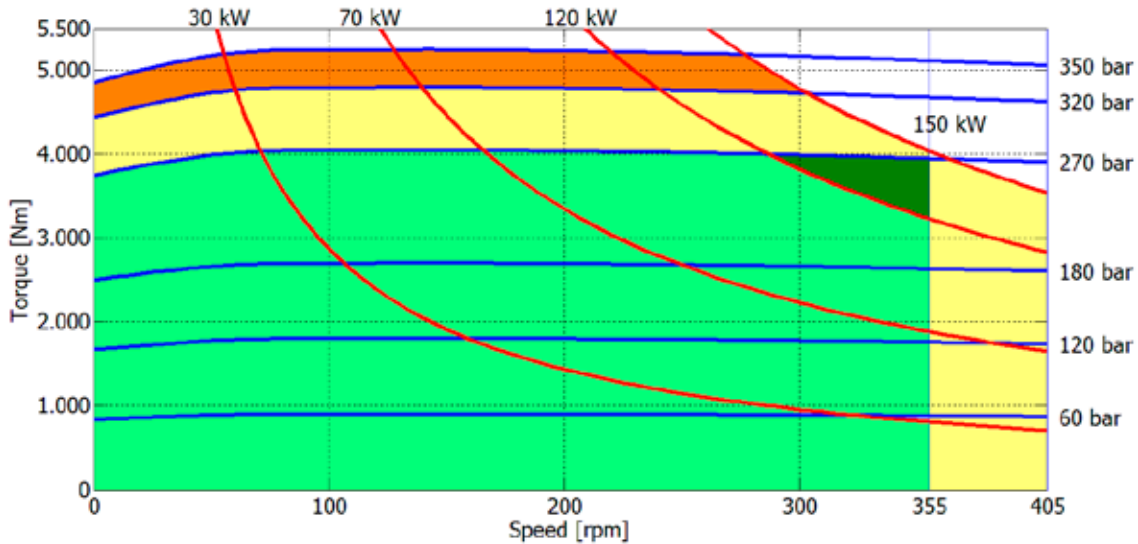
- Continuous operation
- Continuous operation with flushing or intermittent operation (see below for intermittent operation)
- Intermittent operation: permitted for a 15% of duty cycle, for 3 minutes maximum period
- Peak operation: permitted for very short periods (3-5 seconds every 10-15 minutes)

**The above diagrams are referring to the hydraulic motor working with a fluid in ideal conditions (viscosity at 40 cSt).** In case the working temperature increases and viscosity reach values under the recommended values (see hydraulic fluid recommendations) flushing must be performed or ISO oil grade must be changed. The working temperature must not overcome 70 °C.

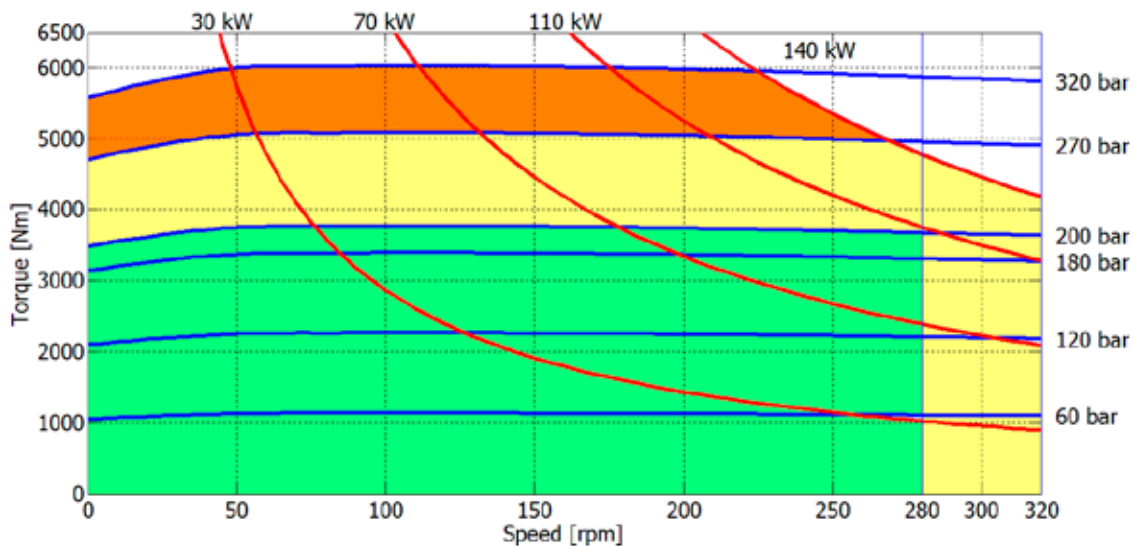
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# IAMD H4 - PERFORMANCE DIAGRAMS

## 1000 cc



## 1250 cc

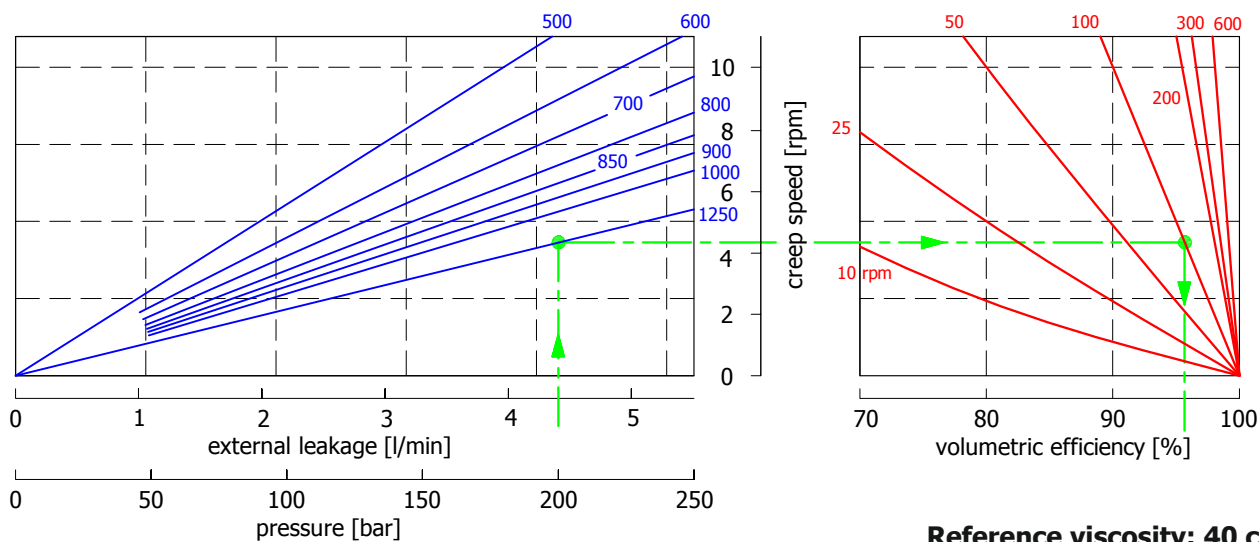


- Continuous operation
- Continuous operation with flushing or intermittent operation (see below for intermittent operation)
- Intermittent operation: permitted for a 15% of duty cycle, for 3 minutes maximum period
- Peak operation: permitted for very short periods (3-5 seconds every 10-15 minutes)

**The above diagrams are referring to the hydraulic motor working with a fluid in ideal conditions (viscosity at 40 cSt).** In case the working temperature increases and viscosity reach values under the recommended values (see hydraulic fluid recommendations) flushing must be performed or ISO oil grade must be changed. The working temperature must not overcome 70 °C.

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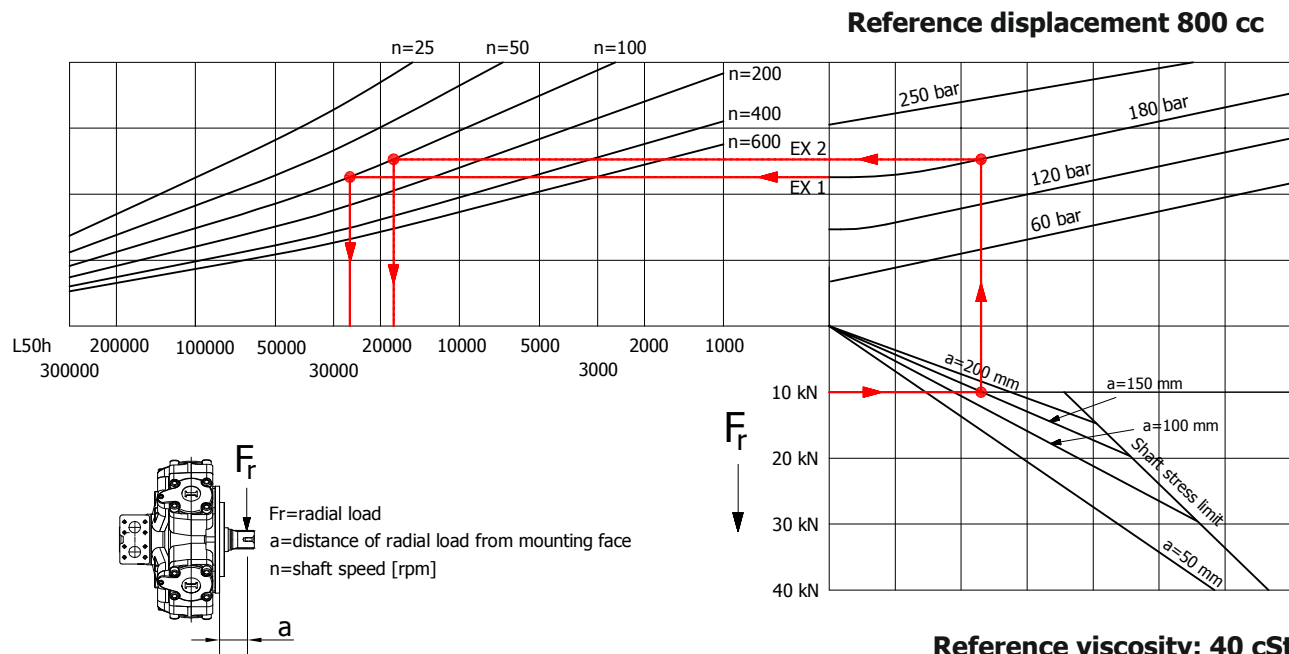
**CREEP SPEED - VOLUMETRIC EFFICIENCY**



Example:

We suppose (1250 cc):  $p=200$  [bar], we obtain: external leakage 4,3 [l/min], shaft creep speed 4,2 [rpm].  
If we suppose (1250 cc):  $p=200$  [bar] and  $n=100$  [rpm] we obtain a volumetric efficiency of 96%;

**BEARING LIFE**



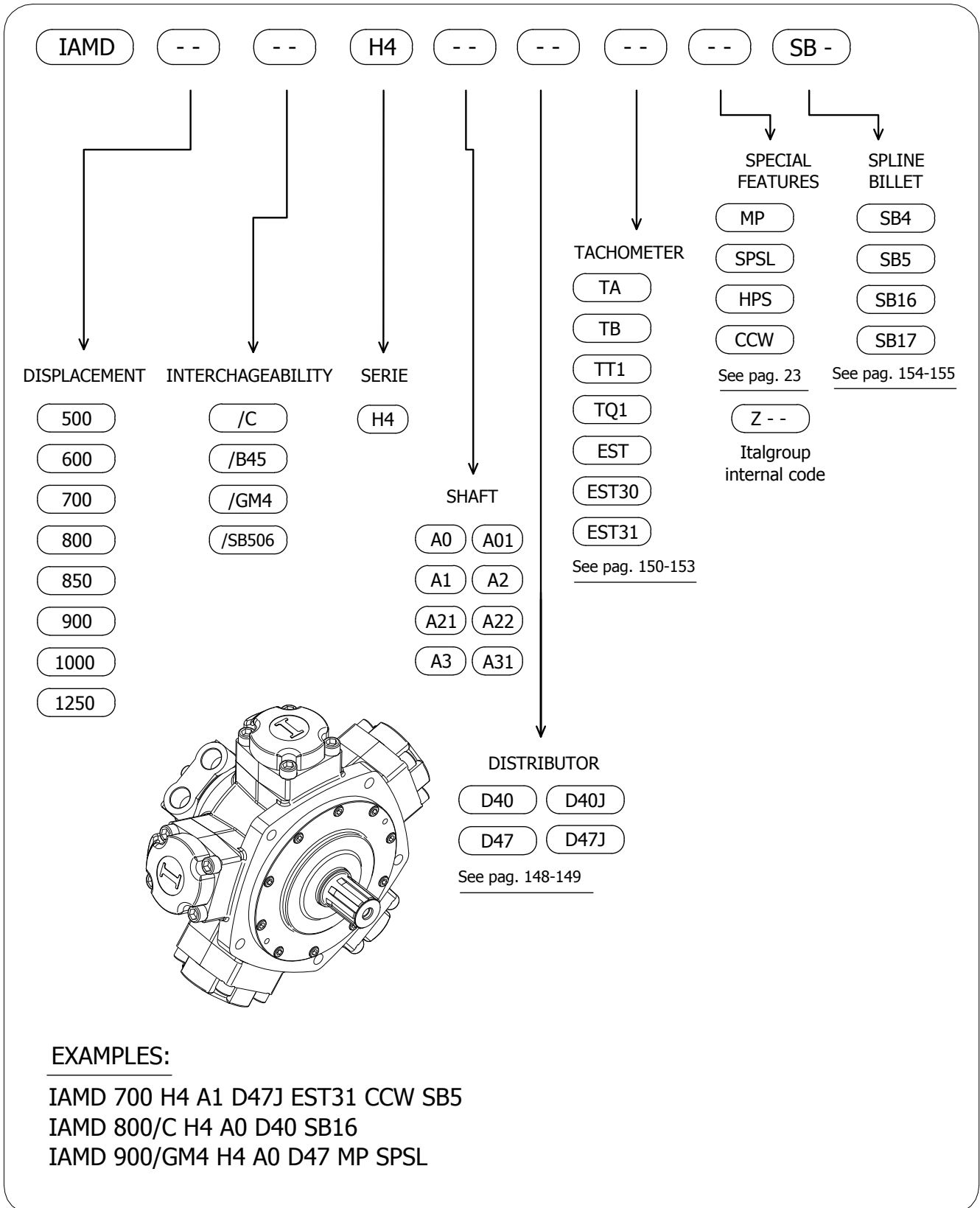
Example:

We suppose (EX1):  $p=180$  [bar],  $n=100$  [rpm]; we obtain an average lifetime of 25000 [h].  
If we suppose (EX2):  $F_r=10$  [kN],  $a=150$  [mm],  $n=100$  [rpm] and  $p=180$  [bar] we obtain an average lifetime of 18000 [h].

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# IAMD H4 - ORDERING CODE



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***ITALGROUP SRL***  
***IAMD SERIES - IAMD H45***  

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***GENERAL CATALOGUE***  

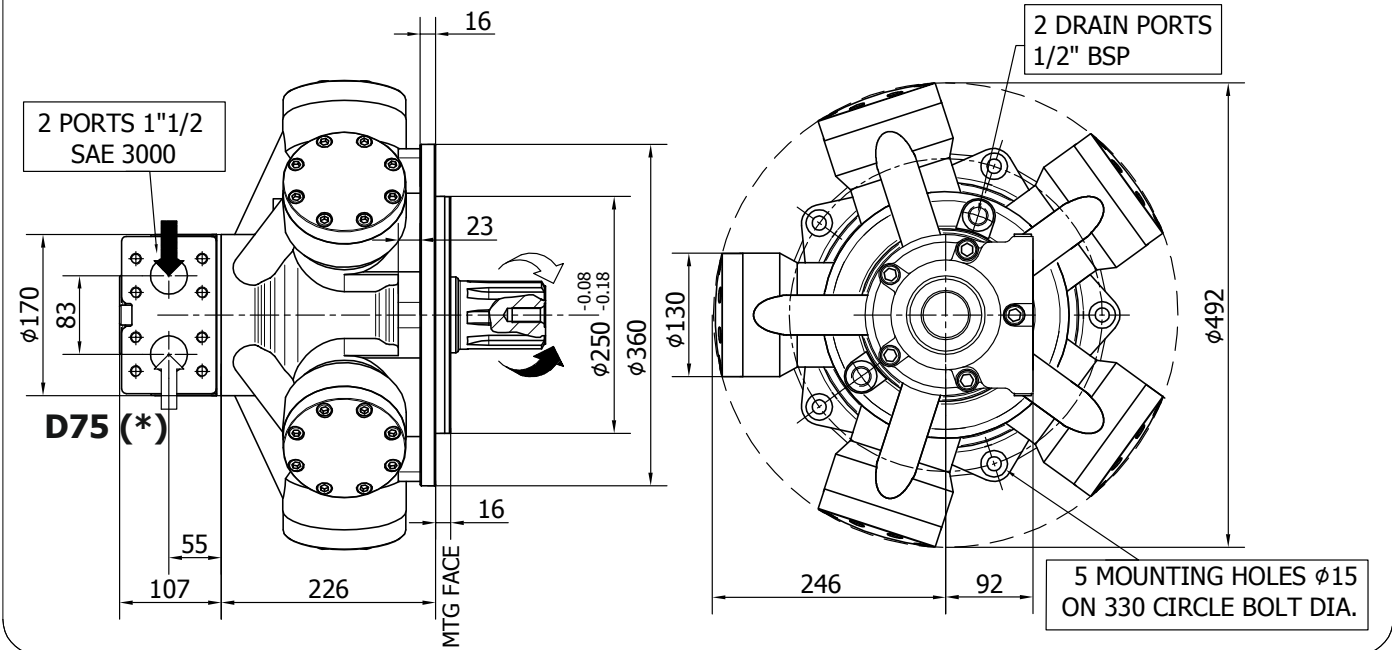
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***INDEX - IAMD H45***

<u>IAMD H45/C - INSTALLATION DRAWINGS</u>	Pag	66 - 67
<u>IAMD H45/C - PERFORMANCE DIAGRAMS</u>	"	68 - 69
<u>IAMD H45/C - ORDERING CODE</u>	"	70

**INSTALLATION DRAWING**

Available distributor flange: **FL4**  
refer to page 156 (distributor fitting D75)



**TECHNICAL DATA**

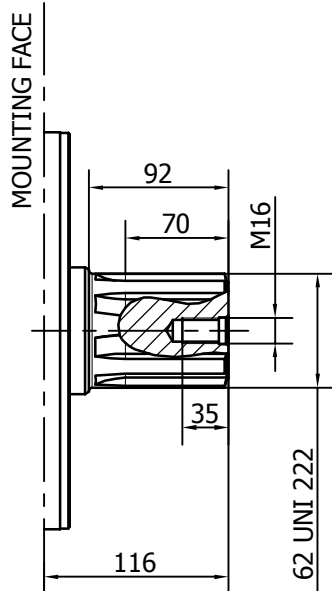
		<b>1100</b>	<b>1400</b>
DISPLACEMENT	[cc]	1182	1376
SPECIFIC TORQUE	[Nm/bar]	18.8	21.9
MAX. CONT. PRESSURE	[bar]	250	250
HYDROSTATIC TEST PRESSURE	[bar]	420	420
MAX. CONT. SPEED	[rpm]	400	350
PEAK SPEED (***)	[rpm]	450	400
MAX. CONT. POWER (****)	[kW]	150	150
MAX. CONT. POWER WITH FLUSHING	[kW]	180	180
MAX. CASE PRESSURE	[bar]	6	6
DRY WEIGHT	[kg]	120	120
TEMPERATURE RANGE (**)	[°C]	-30÷70	-30÷70

- (\*) The standard distributor (D75) is shown. Please refer to distributors section (pag. 148-149) for different distributor interfaces.
- (\*\*) Please refer to the hydraulic fluid recommendations (pag. 10-11).
- (\*\*\*) Do not exceed maximum continuous power with flushing (see pag. 13).
- (\*\*\*\*) For motor operation with a continuous duty cycle at maximum continuous power the flushing is usually required. For more information please contact our technical department.

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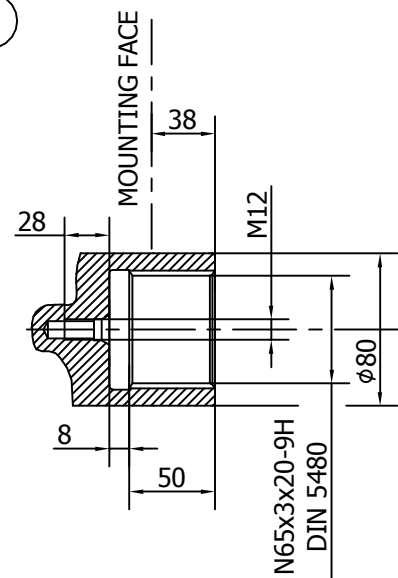
SHAFT CONFIGURATIONS

**A0**



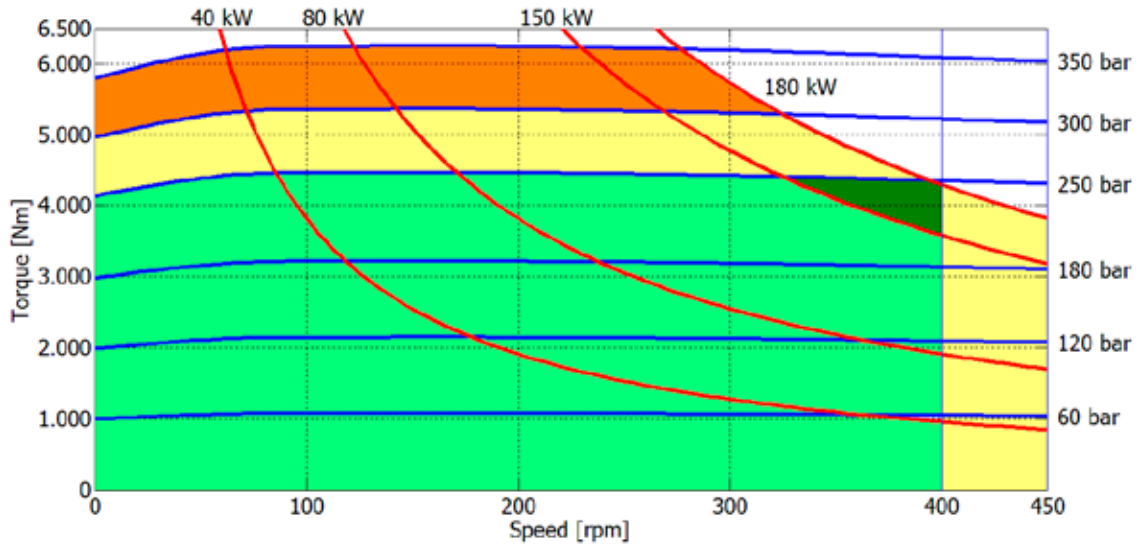
Available spline billet: **SB6**

**A3**

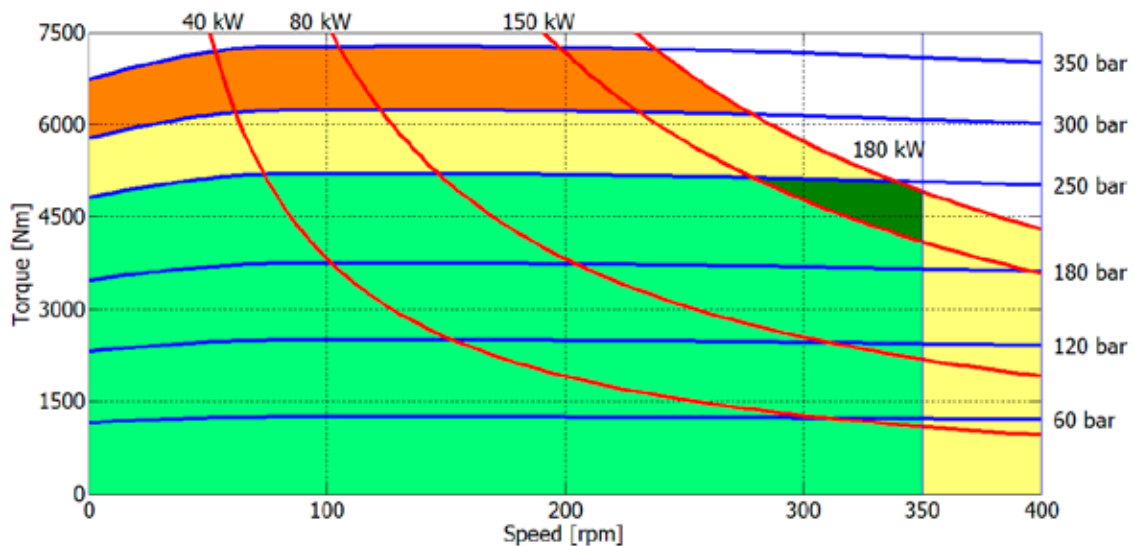


**IAMD H45 - PERFORMANCE DIAGRAMS**

**1100 cc**



**1400 cc**

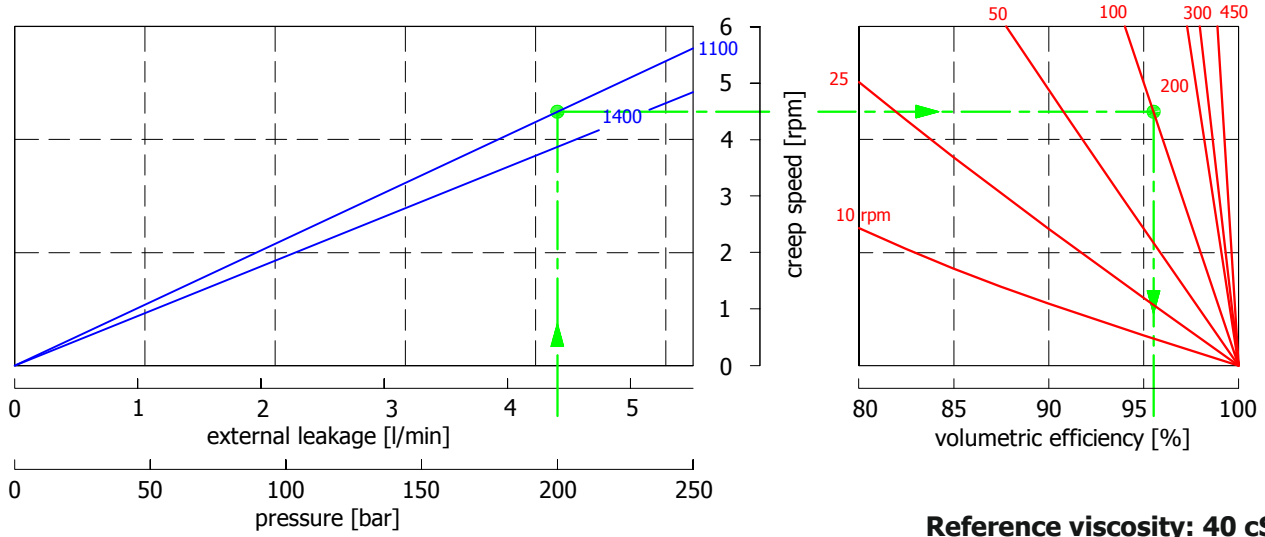


- Continuous operation
- Continuous operation with flushing or intermittent operation (see below for intermittent operation)
- Intermittent operation: permitted for a 15% of duty cycle, for 3 minutes maximum period
- Peak operation: permitted for very short periods (3-5 seconds every 10-15 minutes)

**The above diagrams are referring to the hydraulic motor working with a fluid in ideal conditions (viscosity at 40 cSt).** In case the working temperature increases and viscosity reach values under the recommended values (see hydraulic fluid recommendations) flushing must be performed or ISO oil grade must be changed. The working temperature must not overcome 70 °C.

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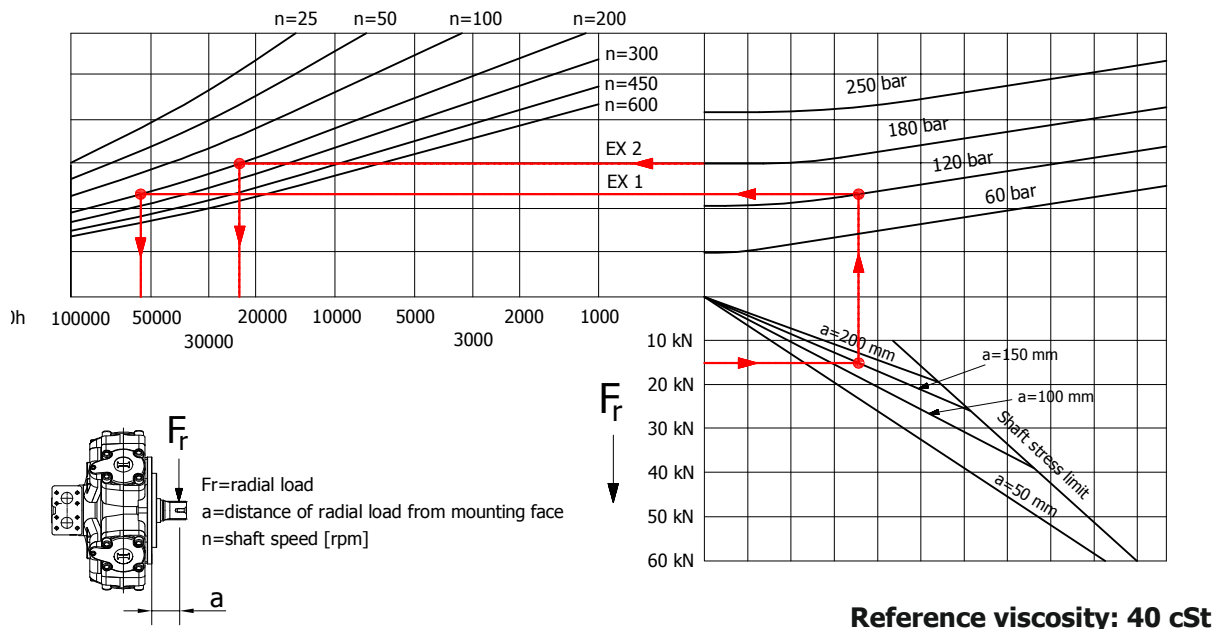
## CREEP SPEED - VOLUMETRIC EFFICIENCY



Example:

We suppose (1100 cc):  $p=200$  [bar], we obtain: external leakage 4,3 [l/min], shaft creep speed 4,5 [rpm].  
If we suppose (1100 cc):  $p=200$  [bar] and  $n=100$  [rpm] we obtain a volumetric efficiency of 95,5%;

## BEARING LIFE

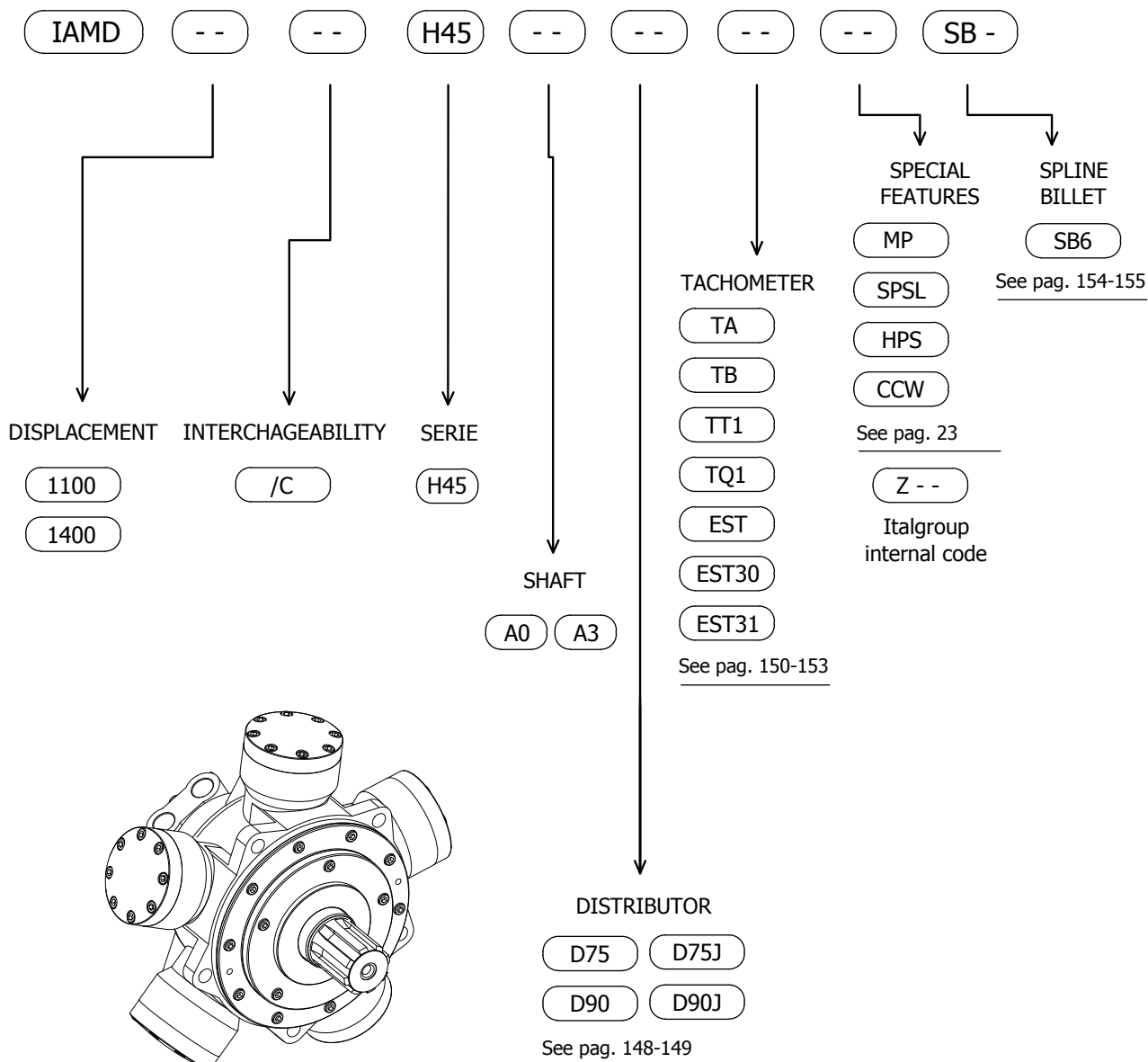


Example:

We suppose (EX2):  $p=180$  [bar],  $n=200$  [rpm]; we obtain an average lifetime of 22000 [h].  
If we suppose (EX1):  $F_r=15$  [kN],  $a=150$  [mm],  $n=200$  [rpm] and  $p=120$  [bar] we obtain an average lifetime of 51000 [h].

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## IAMD H45 - ORDERING CODE



### EXAMPLES:

IAMD 1100/C H45 A3 D75J  
IAMD 1400/C H45 A0 D75 SB6  
IAMD 1400/C H45 A3 D75 SPSL



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**ITALGROUP SRL**  
**IAMD SERIES - IAMD H5**  
**GENERAL CATALOGUE**

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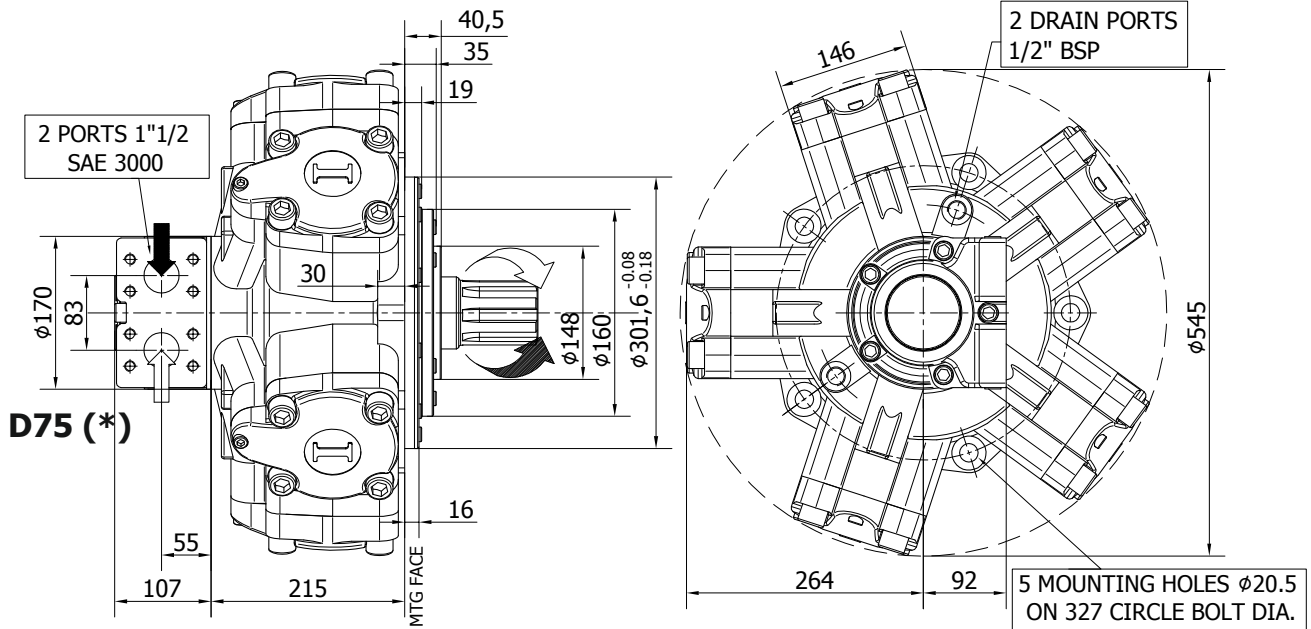
**INDEX - IAMD H5**

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IAMD H5/RM - INSTALLATION DRAWINGS	"	80 - 81
IAMD H5/SX508 - INSTALLATION DRAWINGS	"	82 - 83
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**INSTALLATION DRAWING**

Available distributor flanges: **FL5** **FL6**  
for S03 and S04, refer to page 156 (distributor fitting D75)



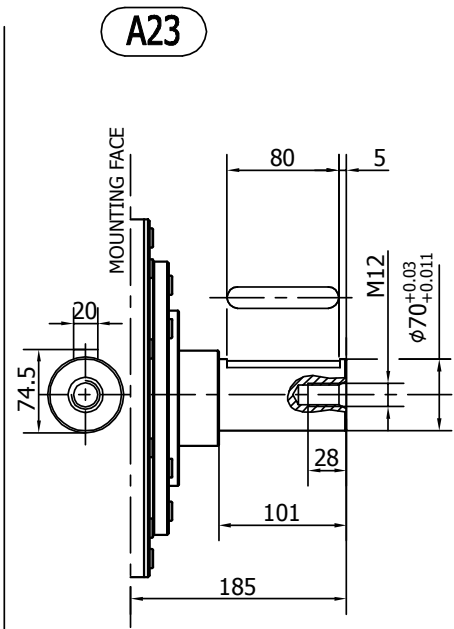
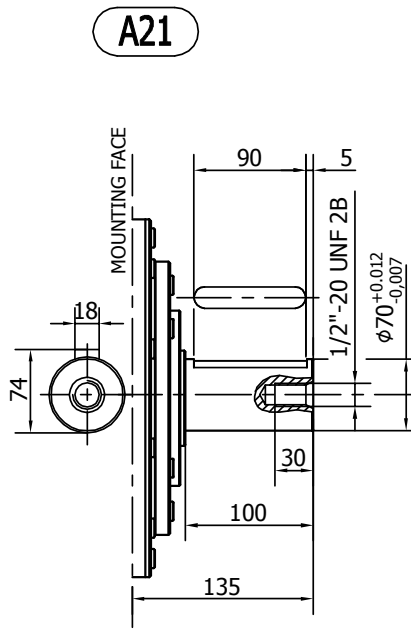
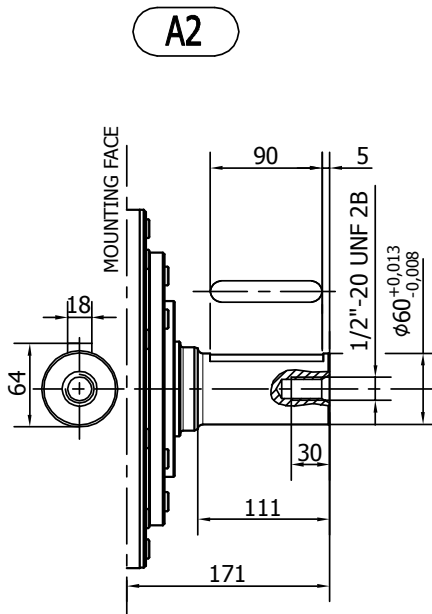
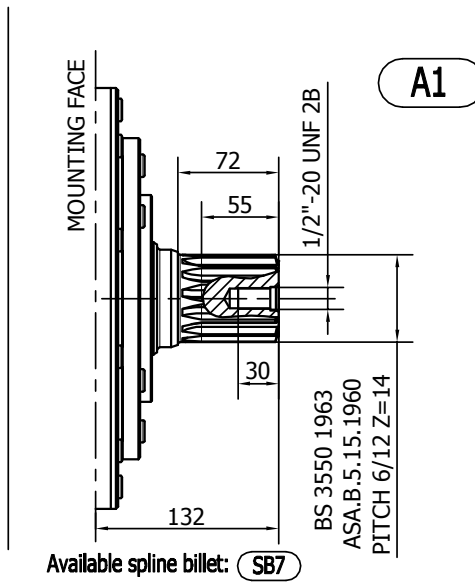
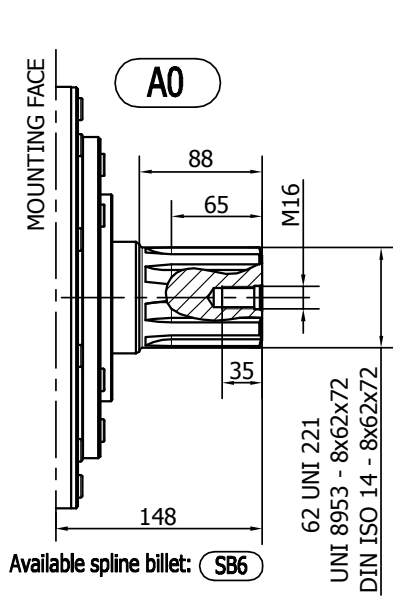
**TECHNICAL DATA**

		<b>900</b>	<b>1000</b>	<b>1200</b>	<b>1400</b>	<b>1500</b>	<b>1600</b>	<b>1800</b>	<b>2000</b>
DISPLACEMENT	[cc]	941	1094	1231	1376	1528	1648	1815	2034
SPECIFIC TORQUE	[Nm/bar]	15	17.4	19.6	21.9	24.3	26.2	28.9	32.4
MAX. CONT. PRESSURE	[bar]	270	270	270	270	270	270	250	190
HYDROSTATIC TEST PRES-SURE	[bar]	420	420	420	420	420	420	420	420
MAX. CONT. SPEED	[rpm]	550	500	450	410	390	370	340	280
PEAK SPEED (***)	[rpm]	600	550	510	470	450	425	390	310
MAX. CONT. POWER (****)	[kW]	165	165	165	165	165	165	165	140
MAX. CONT. POWER WITH FLUSHING	[kW]	200	200	200	200	200	200	200	160
MAX. CASE PRESSURE	[bar]	6	6	6	6	6	6	6	6
DRY WEIGHT	[kg]	173	173	173	173	173	173	173	173
TEMPERATURE RANGE (**)	[°C]	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70

- (\*) The standard distributor (D75) is shown. Please refer to distributors section (pag. 148-149) for different distributor interfaces.
- (\*\*) Please refer to the hydraulic fluid recommendations (pag. 10-11).
- (\*\*\*) Do not exceed maximum continuous power with flushing (see pag. 13).
- (\*\*\*\*) For motor operation with a continuous duty cycle at maximum continuous power the flushing is usually required. For more information please contact our technical department.

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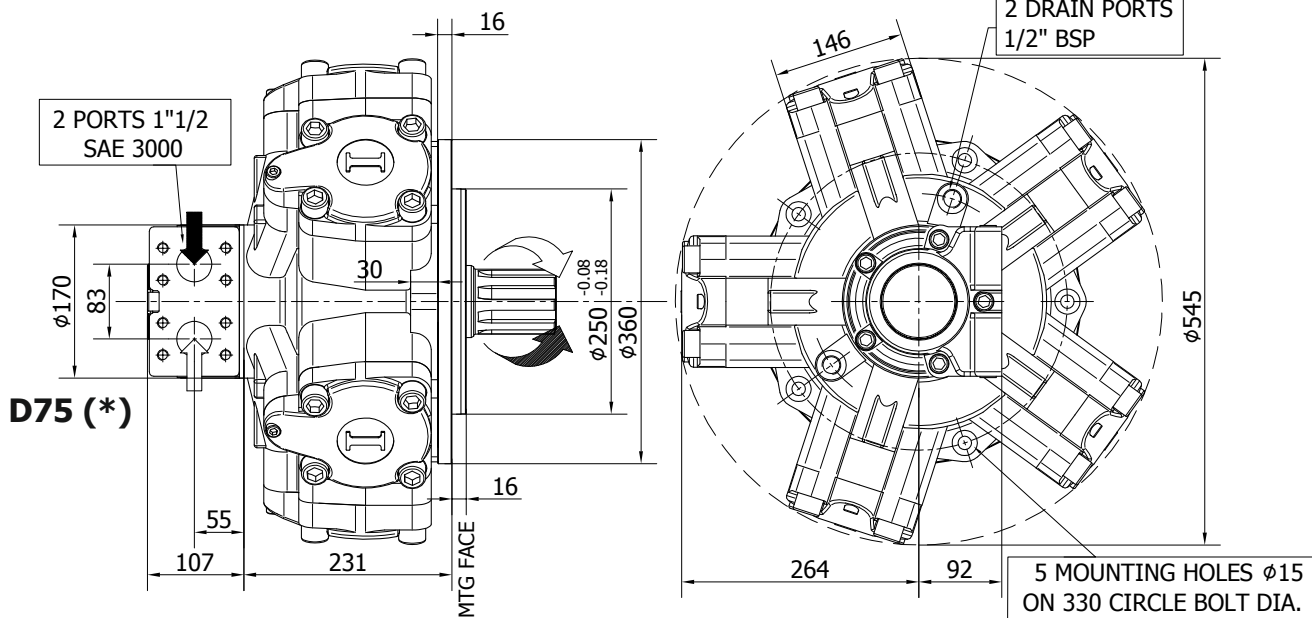
SHAFT CONFIGURATIONS



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**INSTALLATION DRAWING**

Available distributor flange: **FL4**  
refer to page 156 (distributor fitting D75)



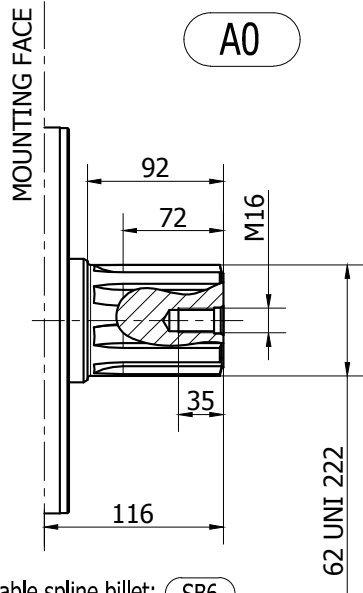
**TECHNICAL DATA**

		<b>900</b>	<b>1000</b>	<b>1200</b>	<b>1400</b>	<b>1500</b>
DISPLACEMENT	[cc]	941	1094	1231	1376	1528
SPECIFIC TORQUE	[Nm/bar]	15	17.4	19.6	21.9	24.3
MAX. CONT. PRESSURE	[bar]	270	270	270	270	270
HYDROSTATIC TEST PRESSURE	[bar]	420	420	420	420	420
MAX. CONT. SPEED	[rpm]	550	500	450	410	390
PEAK SPEED (***)	[rpm]	600	550	510	470	450
MAX. CONT. POWER (****)	[kW]	165	165	165	165	165
MAX. CONT. POWER WITH FLUSHING	[kW]	200	200	200	200	200
MAX. CASE PRESSURE	[bar]	6	6	6	6	6
DRY WEIGHT	[kg]	173	173	173	173	173
TEMPERATURE RANGE (**)	[°C]	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70

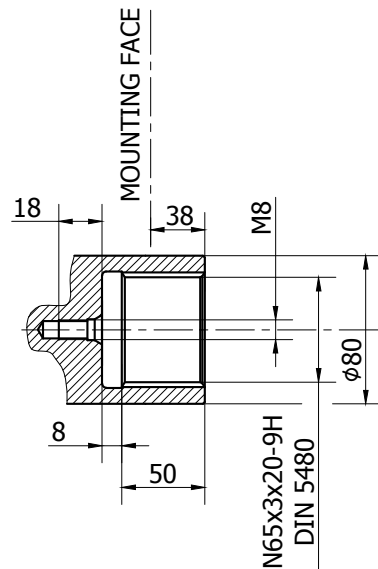
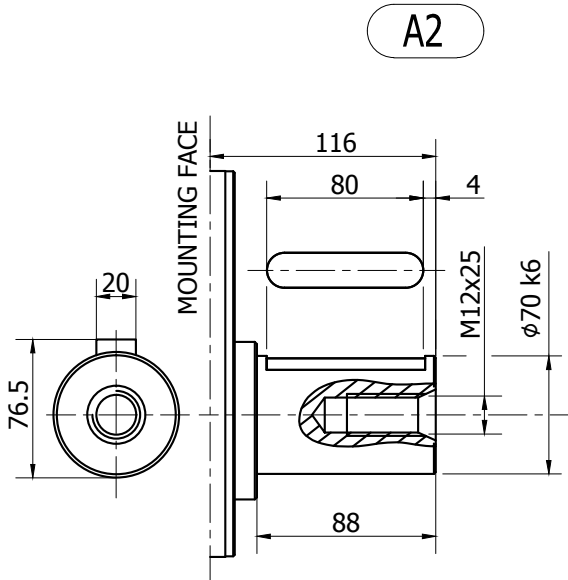
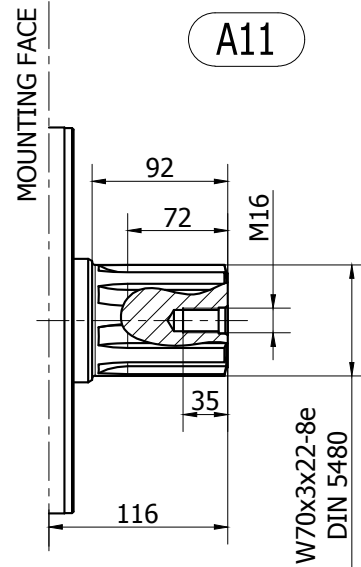
- (\*) The standard distributor (D75) is shown. Please refer to distributors section (pag. 148-149) for different distributor interfaces.
- (\*\*) Please refer to the hydraulic fluid recommendations (pag. 10-11).
- (\*\*\*) Do not exceed maximum continuous power with flushing (see pag. 13).
- (\*\*\*\*) For motor operation with a continuous duty cycle at maximum continuous power the flushing is usually required. For more information please contact our technical department.

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**SHAFT CONFIGURATIONS**

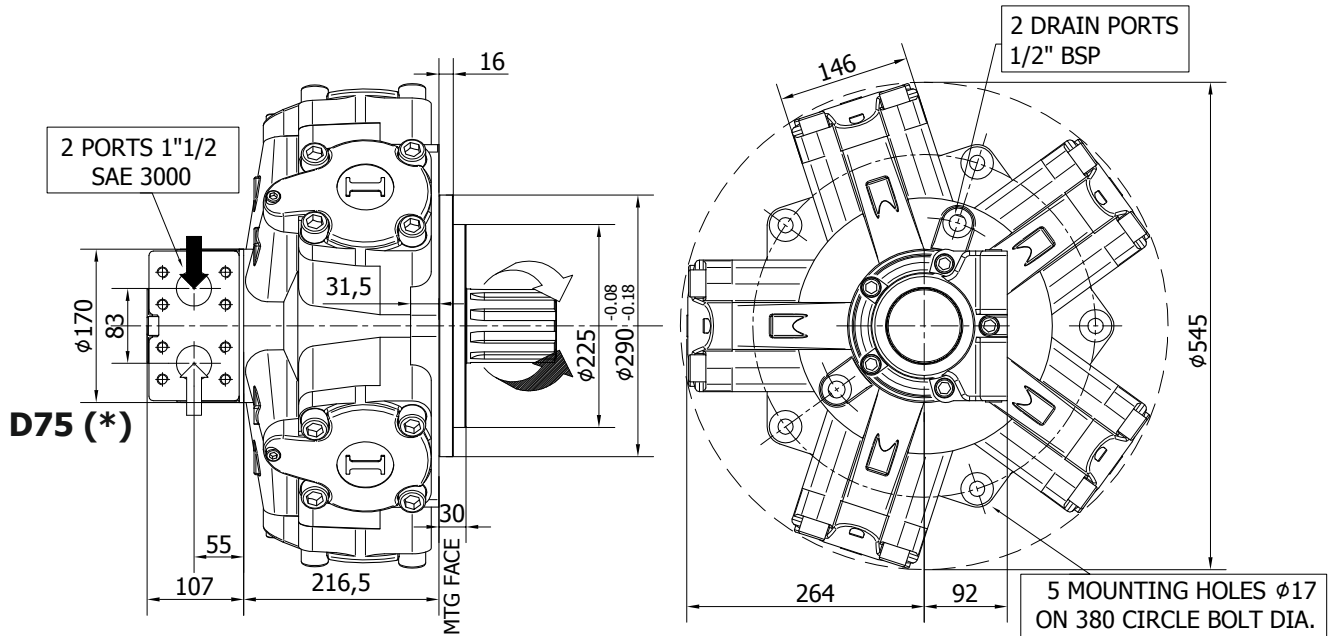


Available spline billet: **SB6**



**INSTALLATION DRAWING**

Available distributor flange: **FL4**  
refer to page 156 (distributor fitting D75)



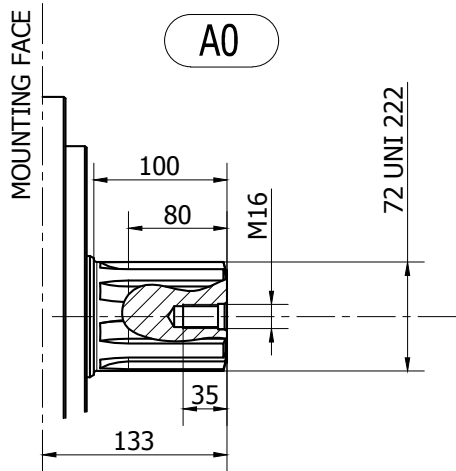
**TECHNICAL DATA**

		<b>1600</b>	<b>1800</b>	<b>2000</b>
DISPLACEMENT	[cc]	1648	1815	2034
SPECIFIC TORQUE	[Nm/bar]	26.2	28.9	32.4
MAX. CONT. PRESSURE	[bar]	270	250	190
HYDROSTATIC TEST PRES-SURE	[bar]	420	420	420
MAX. CONT. SPEED	[rpm]	370	340	280
PEAK SPEED (***)	[rpm]	425	390	310
MAX. CONT. POWER (****)	[kW]	165	165	140
MAX. CONT. POWER WITH FLUSHING	[kW]	200	200	160
MAX. CASE PRESSURE	[bar]	6	6	6
DRY WEIGHT	[kg]	173	173	173
TEMPERATURE RANGE (**)	[°C]	-30÷70	-30÷70	-30÷70

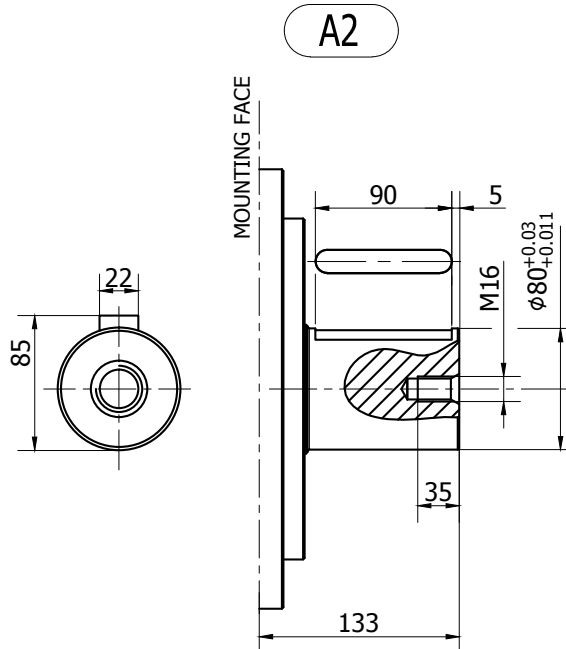
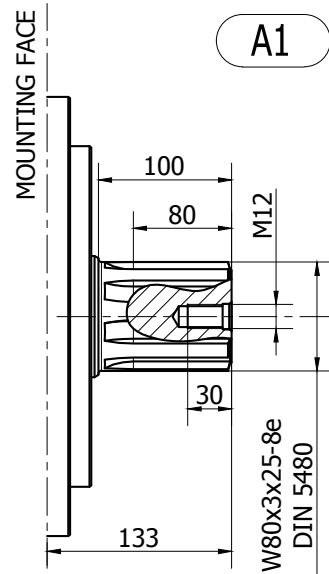
- (\*) The standard distributor (D75) is shown. Please refer to distributors section (pag. 148-149) for different distributor interfaces.
- (\*\*) Please refer to the hydraulic fluid recommendations (pag. 10-11).
- (\*\*\*) Do not exceed maximum continuous power with flushing (see pag. 13).
- (\*\*\*\*) For motor operation with a continuous duty cycle at maximum continuous power the flushing is usually required. For more information please contact our technical department.

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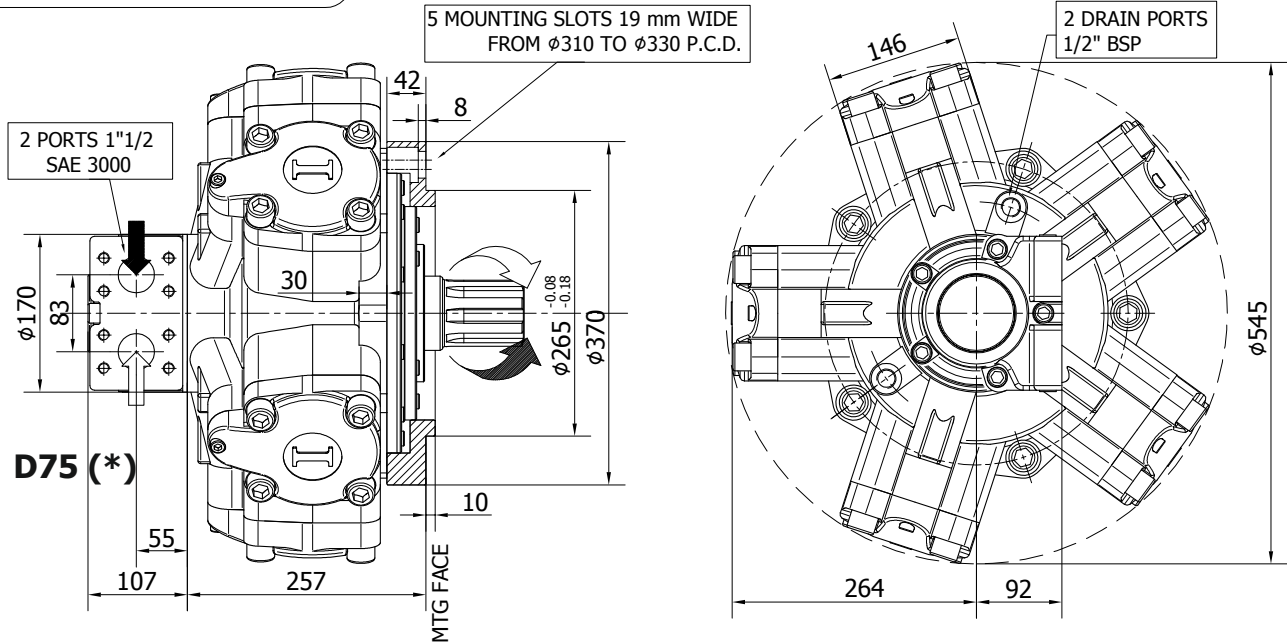
SHAFT CONFIGURATIONS



Available spline billet: SB8



**INSTALLATION DRAWING**



**TECHNICAL DATA**

		<b>900</b>	<b>1000</b>	<b>1200</b>	<b>1400</b>	<b>1500</b>	<b>1600</b>	<b>1800</b>	<b>2000</b>
DISPLACEMENT	[cc]	941	1094	1231	1376	1528	1648	1815	2034
SPECIFIC TORQUE	[Nm/bar]	15	17.4	19.6	21.9	24.3	26.2	28.9	32.4
MAX. CONT. PRESSURE	[bar]	270	270	270	270	270	270	250	190
HYDROSTATIC TEST PRES-SURE	[bar]	420	420	420	420	420	420	420	420
MAX. CONT. SPEED	[rpm]	550	500	450	410	390	370	340	280
PEAK SPEED (***)	[rpm]	600	550	510	470	450	425	390	310
MAX. CONT. POWER (****)	[kW]	165	165	165	165	165	165	165	140
MAX. CONT. POWER WITH FLUSHING	[kW]	200	200	200	200	200	200	200	160
MAX. CASE PRESSURE	[bar]	6	6	6	6	6	6	6	6
DRY WEIGHT	[kg]	173	173	173	173	173	173	173	173
TEMPERATURE RANGE (**)	[°C]	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70

- (\*) The standard distributor (D75) is shown. Please refer to distributors section (pag. 148-149) for different distributor interfaces.

- (\*\*) Please refer to the hydraulic fluid recommendations (pag. 10-11).

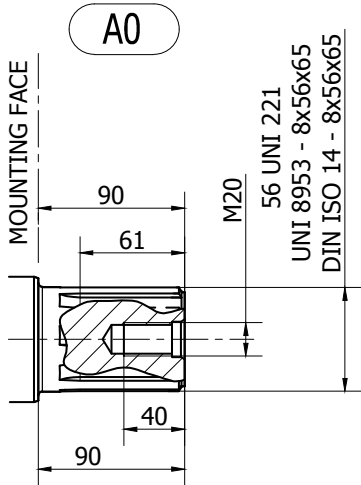
- (\*\*\*) Do not exceed maximum continuous power with flushing (see pag. 13).

- (\*\*\*\*) For motor operation with a continuous duty cycle at maximum continuous power the flushing is usually required. For more information please contact our technical department.

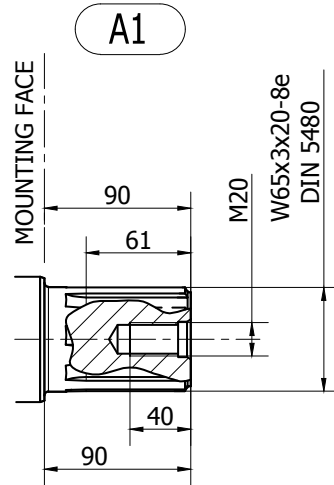
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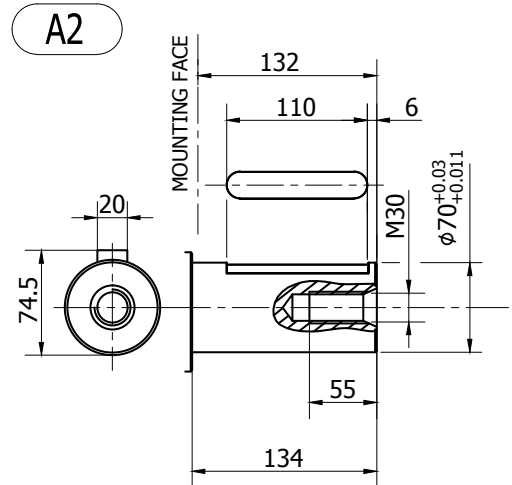
## SHAFT CONFIGURATIONS



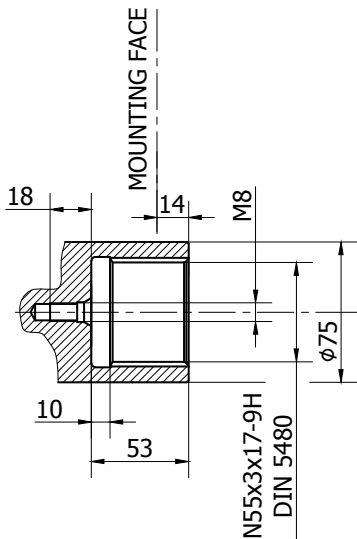
Available spline billet: (SB17)



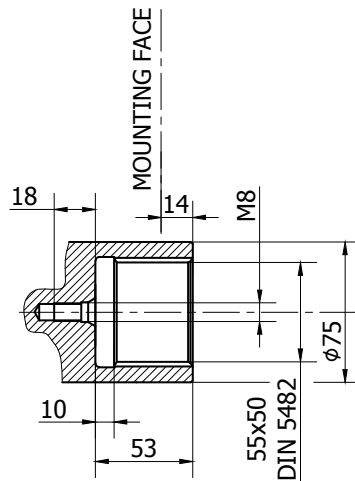
Available spline billet: (SB23)



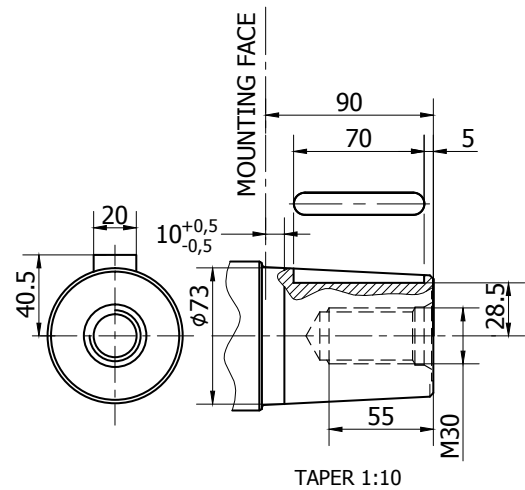
**A3**



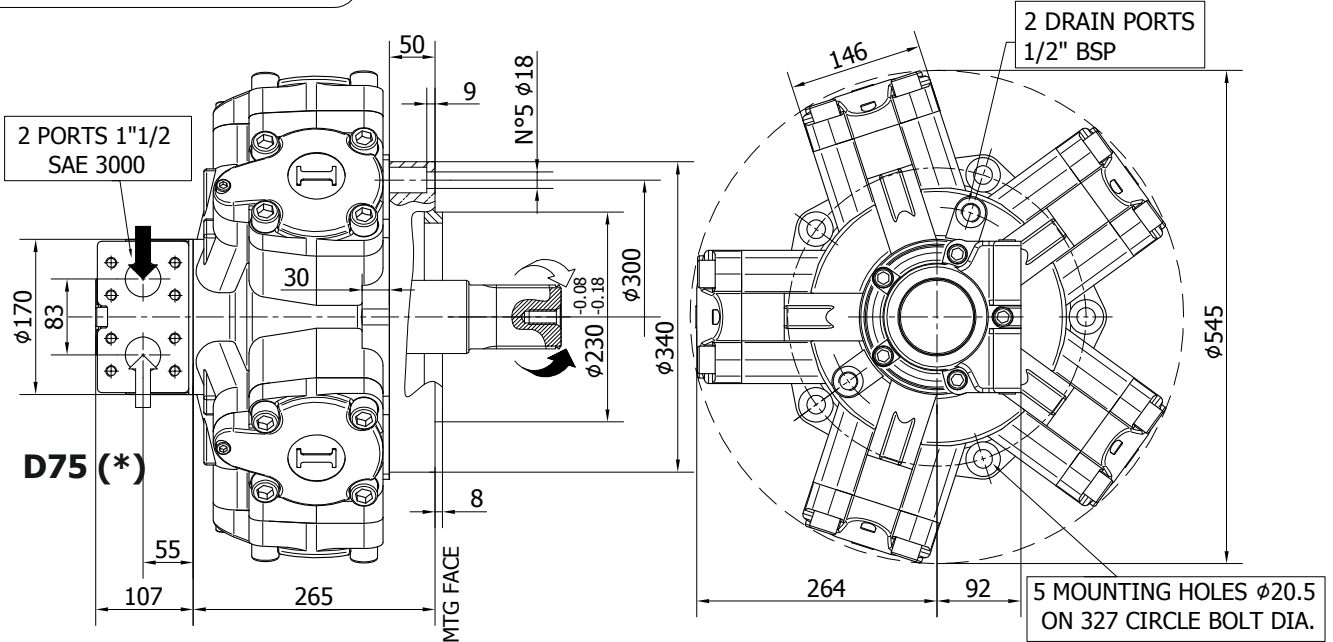
**A31**



**A4**



**INSTALLATION DRAWING**



**TECHNICAL DATA**

		<b>900</b>	<b>1000</b>	<b>1200</b>	<b>1400</b>	<b>1500</b>	<b>1600</b>	<b>1800</b>	<b>2000</b>
DISPLACEMENT	[cc]	941	1094	1231	1376	1528	1648	1815	2034
SPECIFIC TORQUE	[Nm/bar]	15	17.4	19.6	21.9	24.3	26.2	28.9	32.4
MAX. CONT. PRESSURE	[bar]	270	270	270	270	270	270	250	190
HYDROSTATIC TEST PRESSURE	[bar]	420	420	420	420	420	420	420	420
MAX. CONT. SPEED	[rpm]	550	500	450	410	390	370	340	280
PEAK SPEED (***)	[rpm]	600	550	510	470	450	425	390	310
MAX. CONT. POWER (****)	[kW]	165	165	165	165	165	165	165	140
MAX. CONT. POWER WITH FLUSHING	[kW]	200	200	200	200	200	200	200	160
MAX. CASE PRESSURE	[bar]	6	6	6	6	6	6	6	6
DRY WEIGHT	[kg]	173	173	173	173	173	173	173	173
TEMPERATURE RANGE (**)	[°C]	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70

- (\*) The standard distributor (D75) is shown. Please refer to distributors section (pag. 148-149) for different distributor interfaces.

- (\*\*) Please refer to the hydraulic fluid recommendations (pag. 10-11).

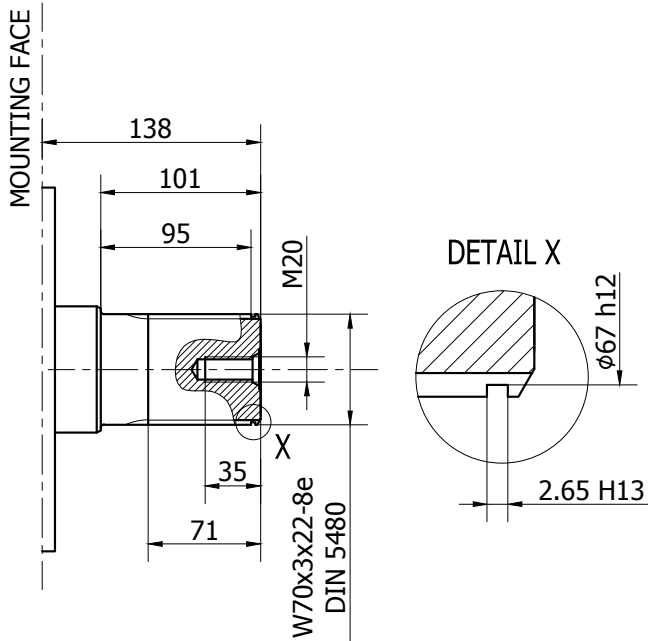
- (\*\*\*) Do not exceed maximum continuous power with flushing (see pag. 13).

- (\*\*\*\*) For motor operation with a continuous duty cycle at maximum continuous power the flushing is usually required. For more information please contact our technical department.

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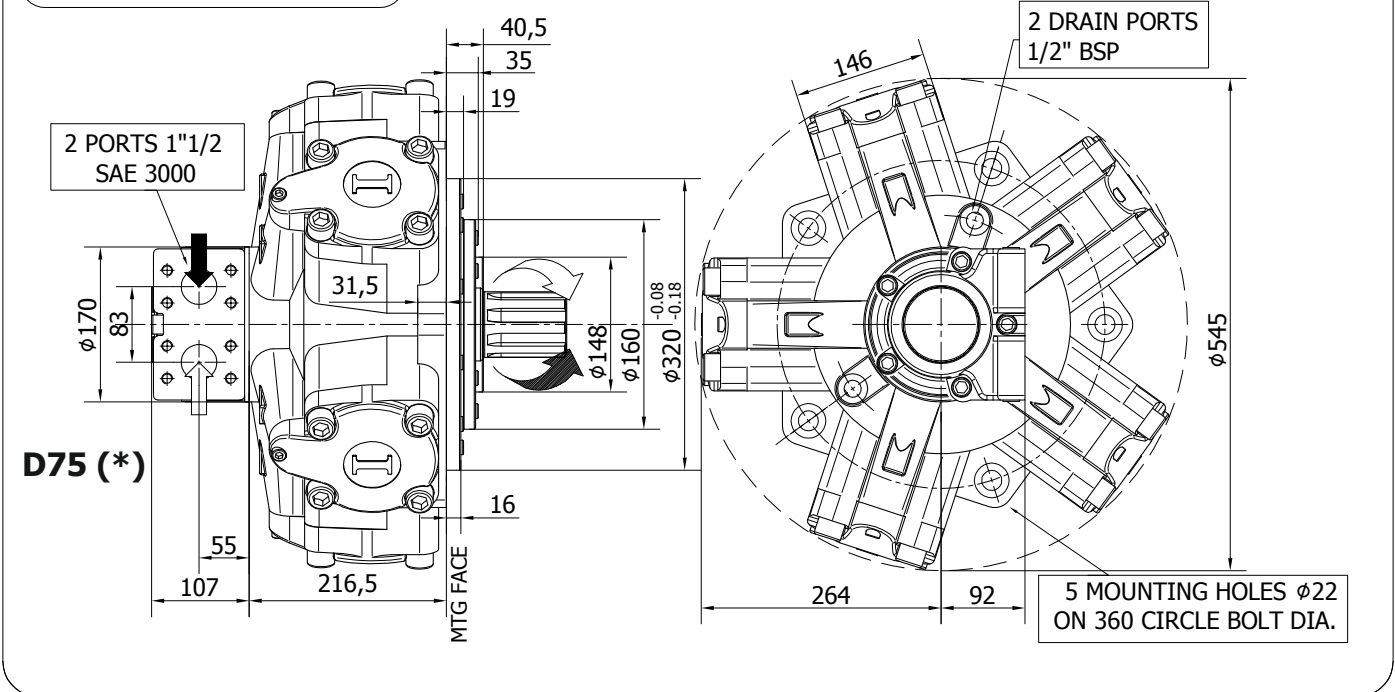
SHAFT CONFIGURATIONS

A1



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**INSTALLATION DRAWING**



**TECHNICAL DATA**

		<b>900</b>	<b>1000</b>	<b>1200</b>	<b>1400</b>	<b>1500</b>	<b>1600</b>	<b>1800</b>	<b>2000</b>
DISPLACEMENT	[cc]	941	1094	1231	1376	1528	1648	1815	2034
SPECIFIC TORQUE	[Nm/bar]	15	17.4	19.6	21.9	24.3	26.2	28.9	32.4
MAX. CONT. PRESSURE	[bar]	270	270	270	270	270	270	250	190
HYDROSTATIC TEST PRESSURE	[bar]	420	420	420	420	420	420	420	420
MAX. CONT. SPEED	[rpm]	550	500	450	410	390	370	340	280
PEAK SPEED (***)	[rpm]	600	550	510	470	450	425	390	310
MAX. CONT. POWER (****)	[kW]	165	165	165	165	165	165	165	140
MAX. CONT. POWER WITH FLUSHING	[kW]	200	200	200	200	200	200	200	160
MAX. CASE PRESSURE	[bar]	6	6	6	6	6	6	6	6
DRY WEIGHT	[kg]	173	173	173	173	173	173	173	173
TEMPERATURE RANGE (**)	[°C]	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70

- (\*) The standard distributor (D75) is shown. Please refer to distributors section (pag. 148-149) for different distributor interfaces.

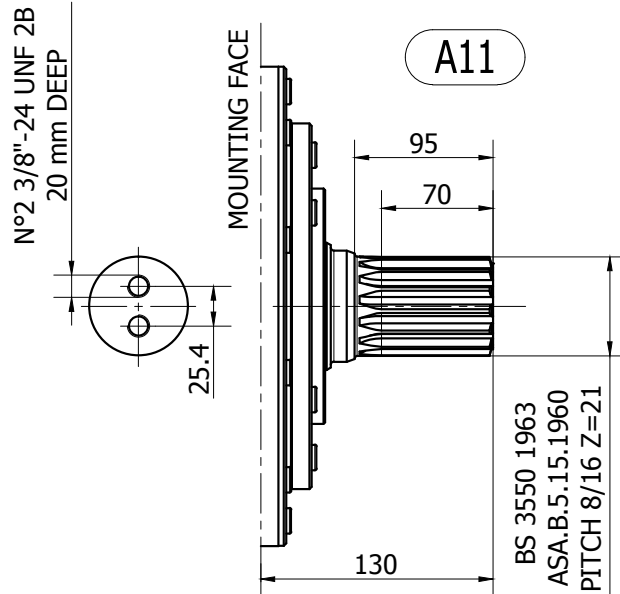
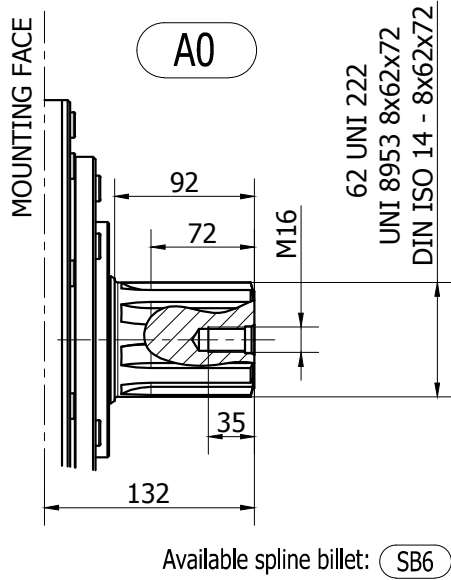
- (\*\*) Please refer to the hydraulic fluid recommendations (pag. 10-11).

- (\*\*\*) Do not exceed maximum continuous power with flushing (see pag. 13).

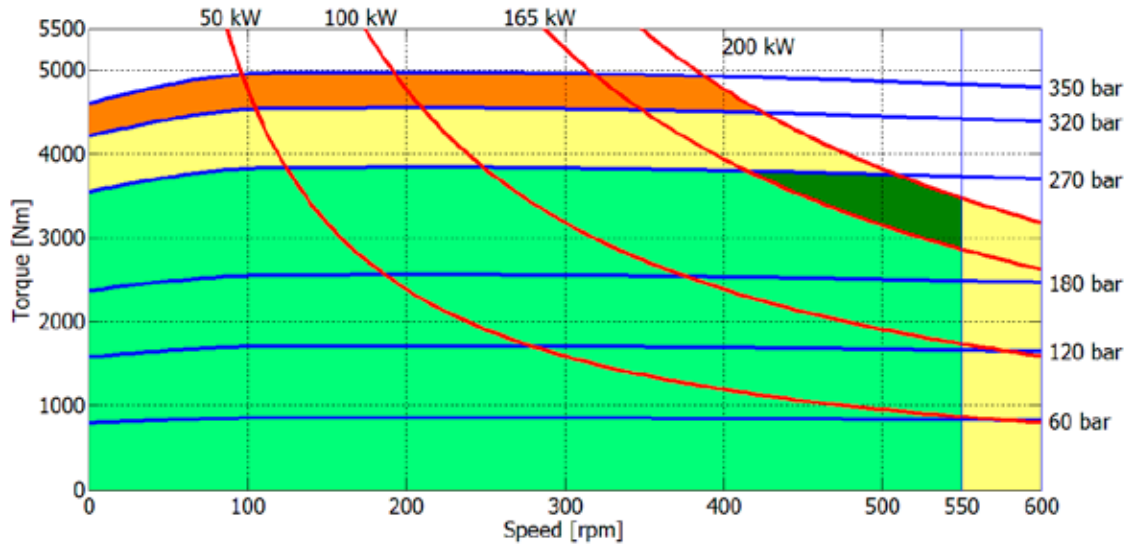
- (\*\*\*\*) For motor operation with a continuous duty cycle at maximum continuous power the flushing is usually required. For more information please contact our technical department.

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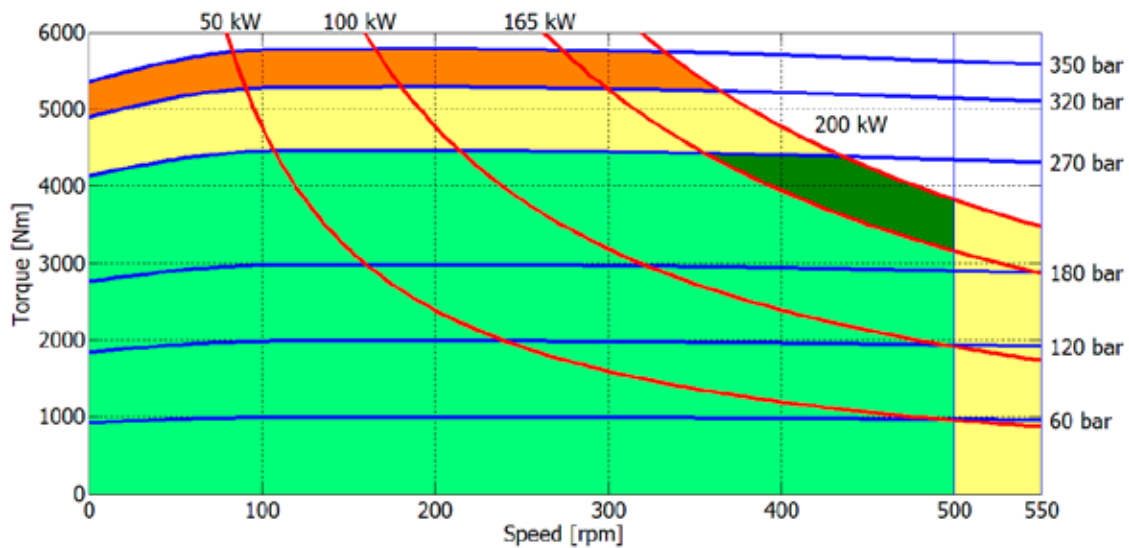
SHAFT CONFIGURATIONS



**900 cc**



**1000 cc**

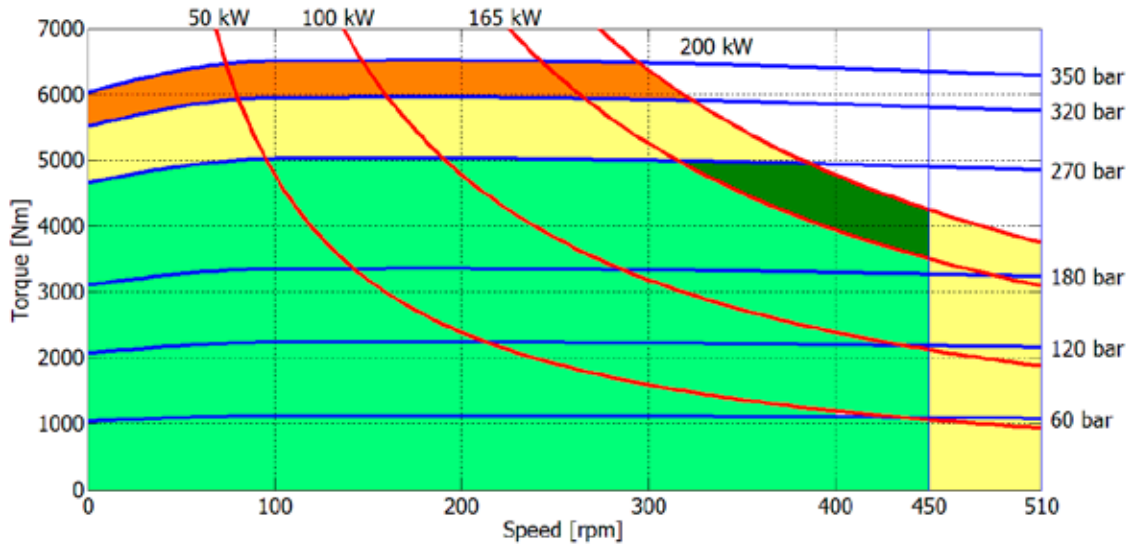


- Continuous operation
- Continuous operation with flushing or intermittent operation (see below for intermittent operation)
- Intermittent operation: permitted for a 15% of duty cycle, for 3 minutes maximum period
- Peak operation: permitted for very short periods (3-5 seconds every 10-15 minutes)

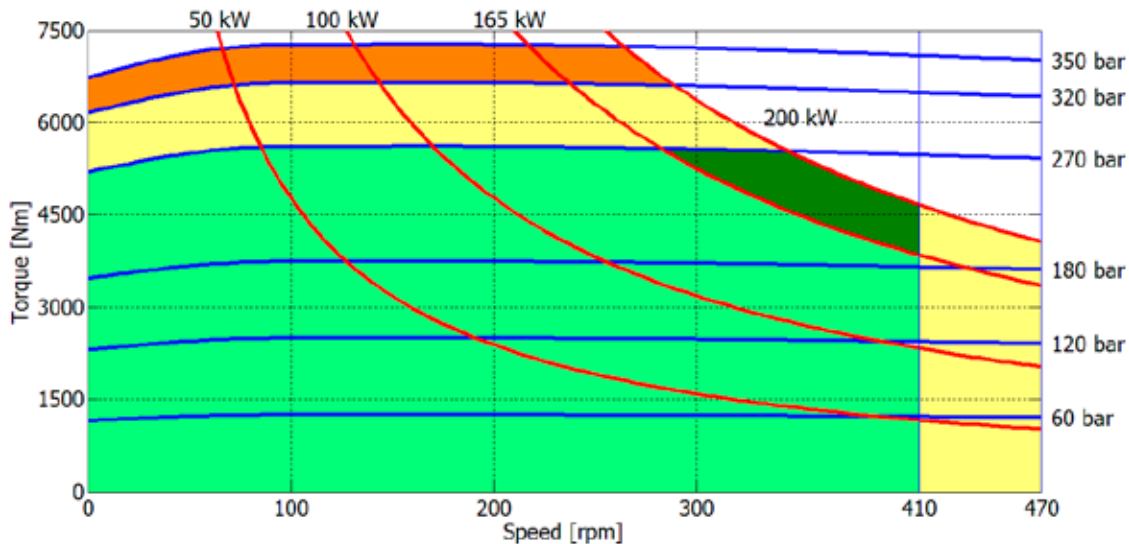
**The above diagrams are referring to the hydraulic motor working with a fluid in ideal conditions (viscosity at 40 cSt).** In case the working temperature increases and viscosity reach values under the recommended values (see hydraulic fluid recommendations) flushing must be performed or ISO oil grade must be changed. The working temperature must not overcome 70 °C.

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## 1200 cc



## 1400 cc



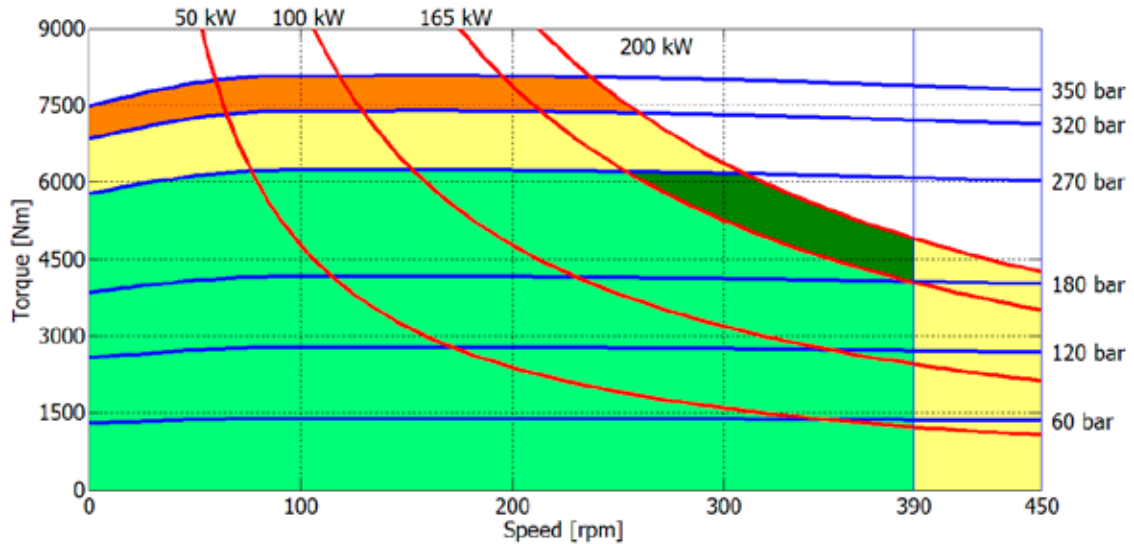
- Continuous operation
- Continuous operation with flushing or intermittent operation (see below for intermittent operation)
- Intermittent operation: permitted for a 15% of duty cycle, for 3 minutes maximum period
- Peak operation: permitted for very short periods (3-5 seconds every 10-15 minutes)

**The above diagrams are referring to the hydraulic motor working with a fluid in ideal conditions (viscosity at 40 cSt).** In case the working temperature increases and viscosity reach values under the recommended values (see hydraulic fluid recommendations) flushing must be performed or ISO oil grade must be changed. The working temperature must not overcome 70 °C.

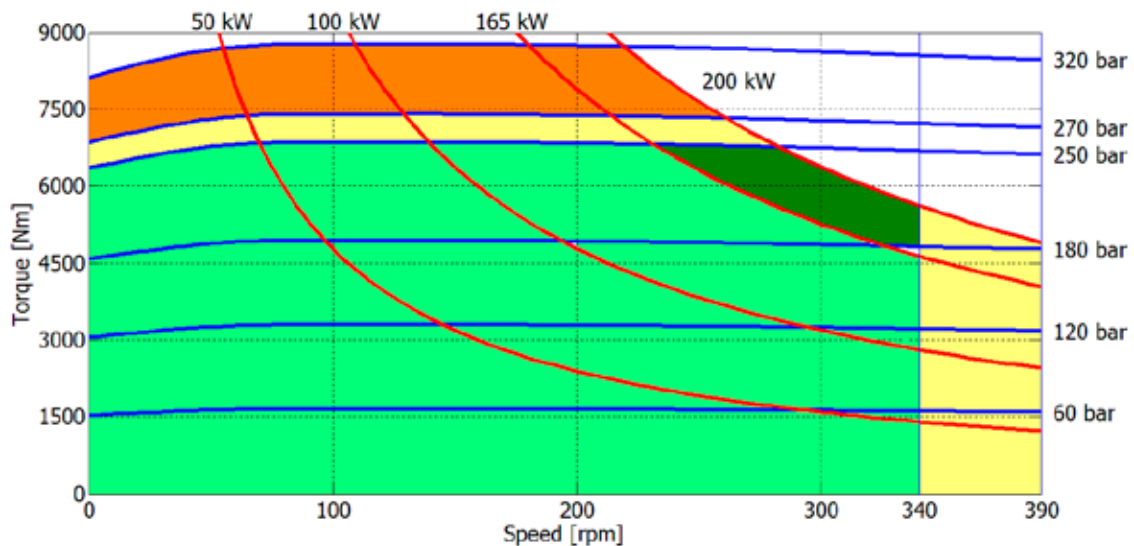
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**IAMD H5 - PERFORMANCE DIAGRAMS**

**1500 cc**



**1600 cc**



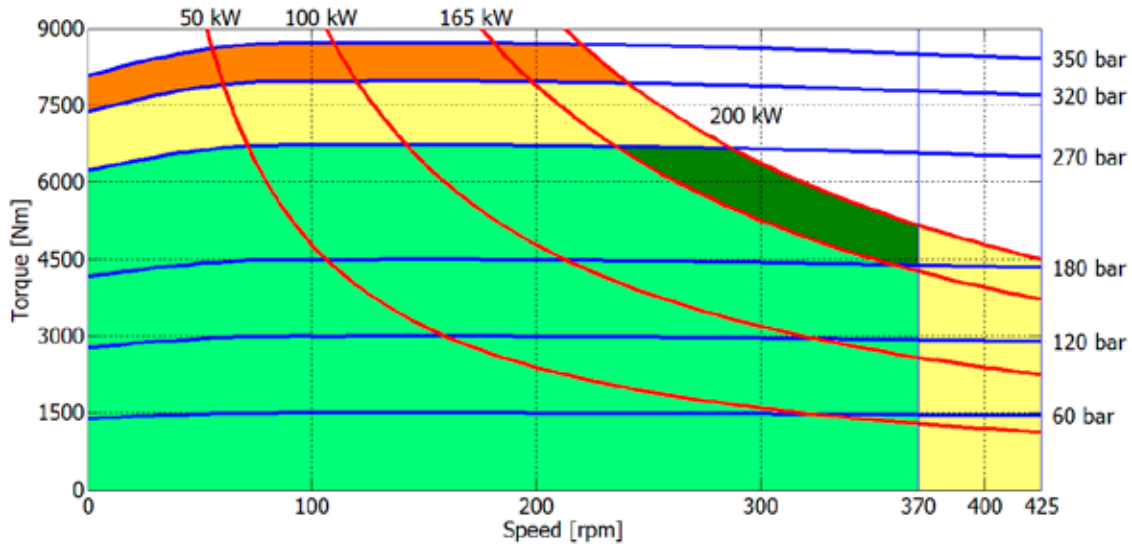
- Continuous operation
- Continuous operation with flushing or intermittent operation (see below for intermittent operation)
- Intermittent operation: permitted for a 15% of duty cycle, for 3 minutes maximum period
- Peak operation: permitted for very short periods (3-5 seconds every 10-15 minutes)

**The above diagrams are referring to the hydraulic motor working with a fluid in ideal conditions (viscosity at 40 cSt).** In case the working temperature increases and viscosity reach values under the recommended values (see hydraulic fluid recommendations) flushing must be performed or ISO oil grade must be changed. The working temperature must not overcome 70 °C.

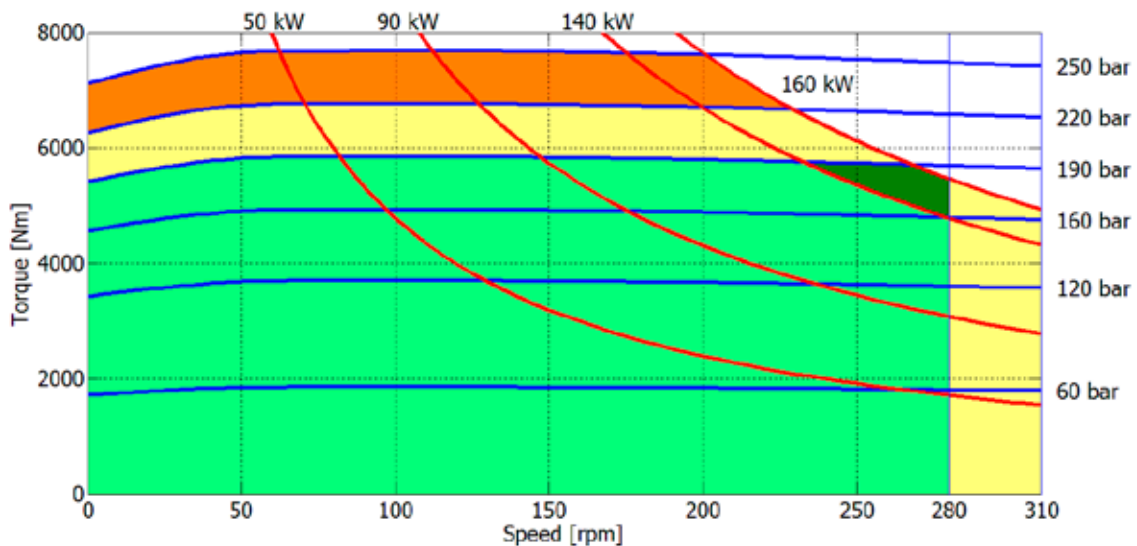
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## 1800 cc



## 2000 cc

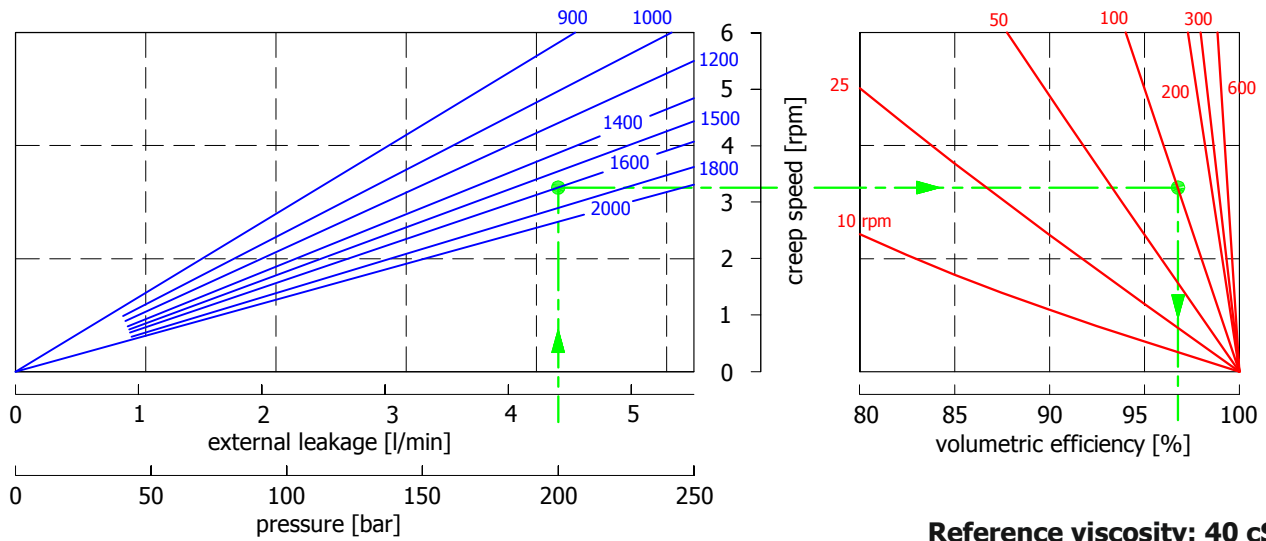


- Continuous operation
- Continuous operation with flushing or intermittent operation (see below for intermittent operation)
- Intermittent operation: permitted for a 15% of duty cycle, for 3 minutes maximum period
- Peak operation: permitted for very short periods (3-5 seconds every 10-15 minutes)

**The above diagrams are referring to the hydraulic motor working with a fluid in ideal conditions (viscosity at 40 cSt).** In case the working temperature increases and viscosity reach values under the recommended values (see hydraulic fluid recommendations) flushing must be performed or ISO oil grade must be changed. The working temperature must not overcome 70 °C.

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**CREEP SPEED - VOLUMETRIC EFFICIENCY**

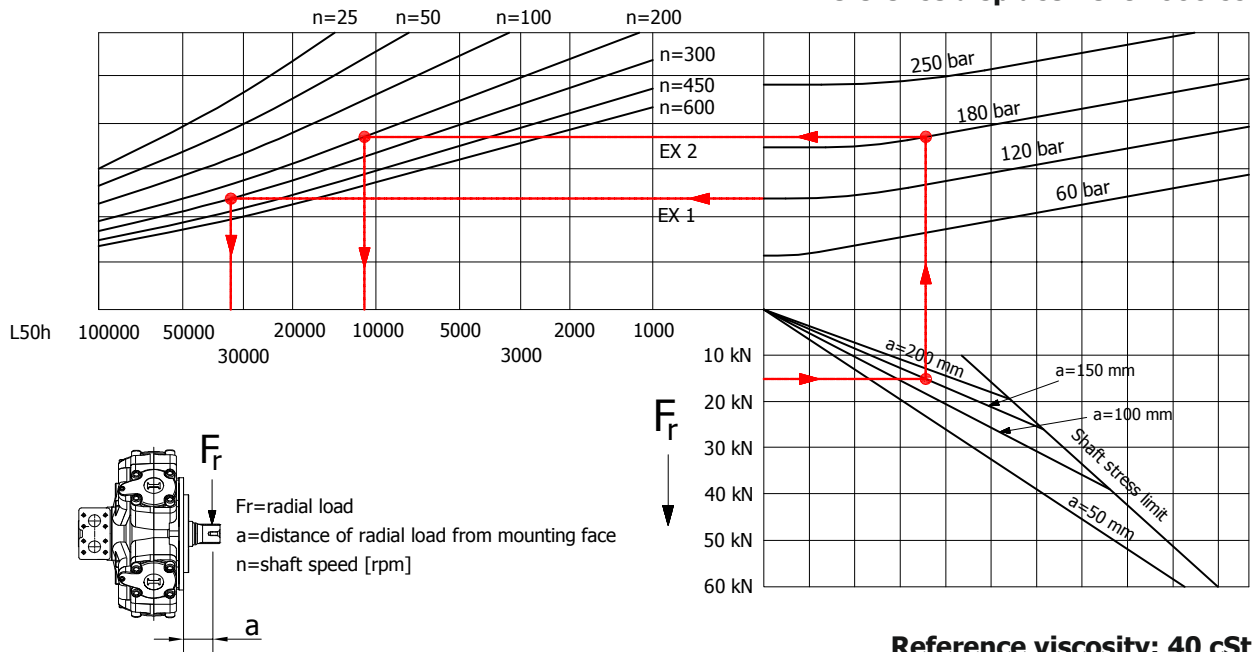


Example:

We suppose (1600 cc):  $p=200$  [bar], we obtain: external leakage 4,3 [l/min], shaft creep speed 3,2 [rpm].  
If we suppose (1600 cc):  $p=200$  [bar] and  $n=100$  [rpm] we obtain a volumetric efficiency of 97%;

**BEARING LIFE**

Reference displacement 1600 cc

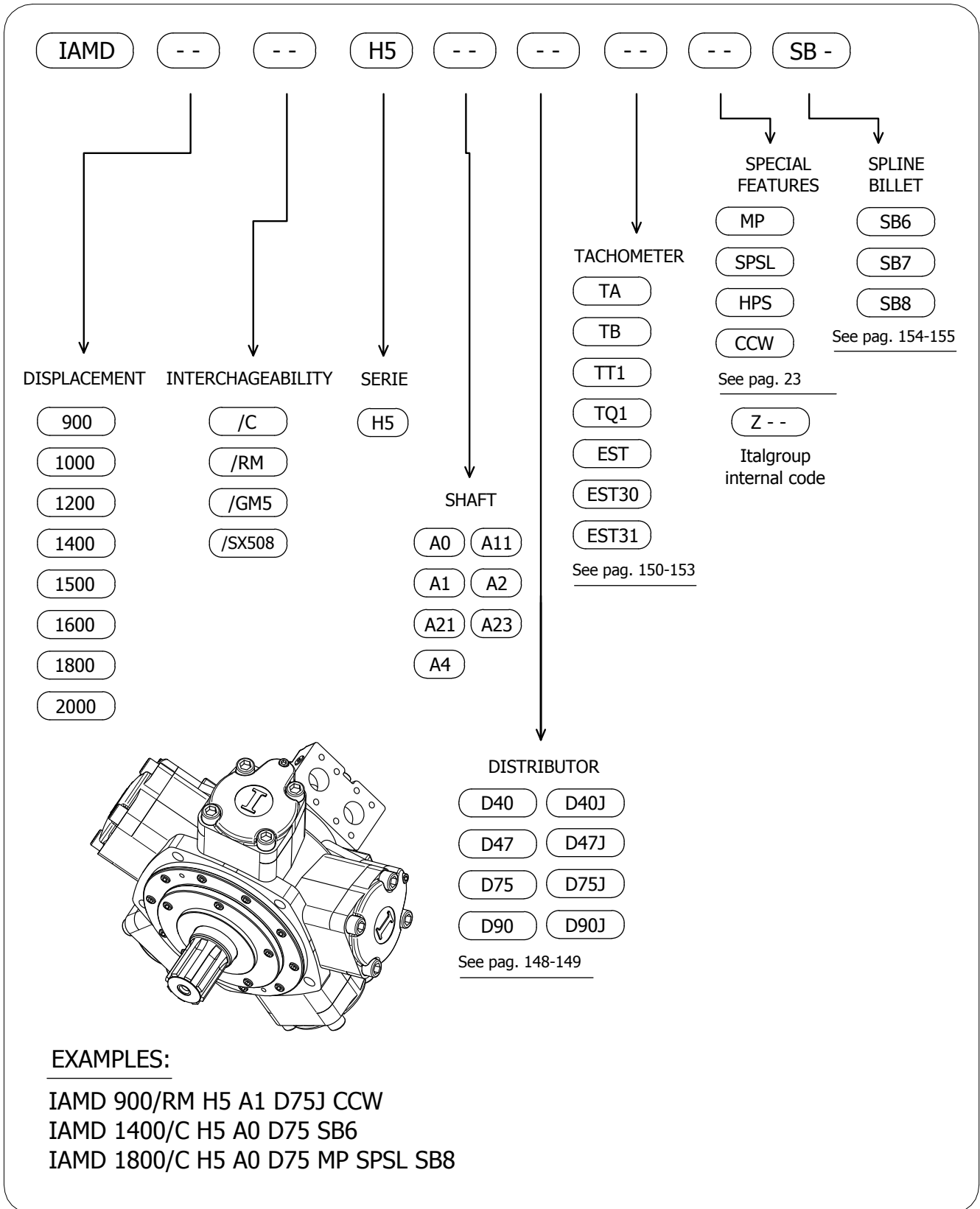


Example:

We suppose (EX1):  $p=120$  [bar],  $n=300$  [rpm]; we obtain an average lifetime of 33000 [h].  
If we suppose (EX2):  $F_r=15$  [kN],  $a=150$  [mm],  $n=200$  [rpm] and  $p=180$  [bar] we obtain an average life-time of 11000 [h].

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# IAMD H5 - ORDERING CODE



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**ITALGROUP SRL**  
**IAMD SERIES - IAMD H55**  
**GENERAL CATALOGUE**

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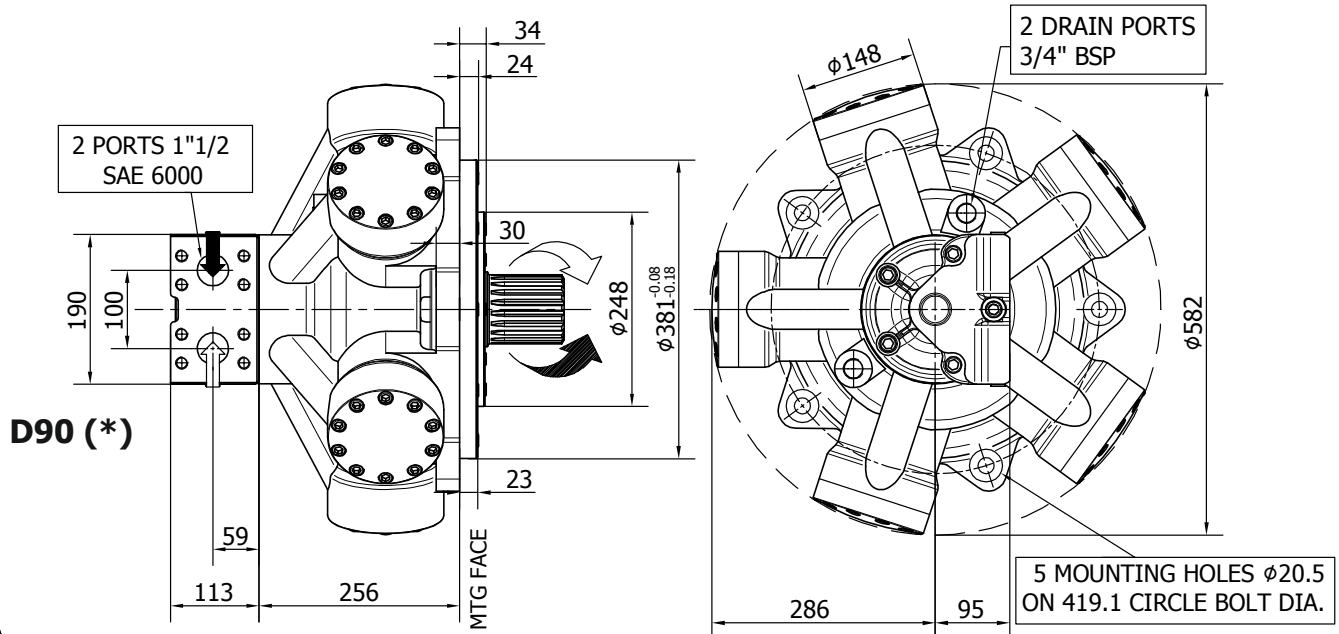
**INDEX - IAMD H55**

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<u>IAMD H55/MR1800 - INSTALLATION DRAWINGS</u>	„	94 - 95
<u>IAMD H55/GM5 - INSTALLATION DRAWINGS</u>	„	96 - 97
<u>IAMD H55 - PERFORMANCE DIAGRAMS</u>	„	98 - 100
<u>IAMD H55 - ORDERING CODE</u>	„	101

**INSTALLATION DRAWING**

Available distributor flange: **FL7**  
for S04, refer to page 157 (distributor fitting D90)



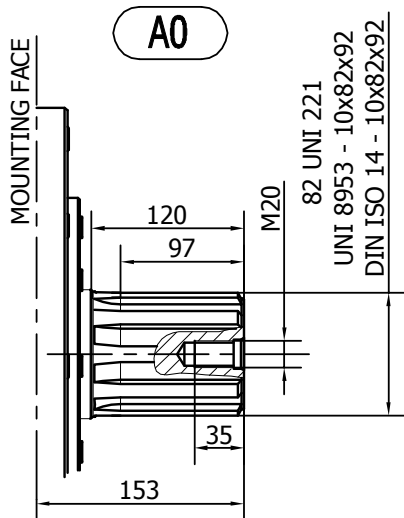
**TECHNICAL DATA**

		<b>1800</b>	<b>2100</b>	<b>2300</b>	<b>2400</b>
DISPLACEMENT	[cc]	1800	2066	2293	2393
SPECIFIC TORQUE	[Nm/bar]	28.7	32.9	36,5	38.9
MAX. CONT. PRESSURE	[bar]	250	250	250	240
HYDROSTATIC TEST PRES-SURE	[bar]	420	420	420	420
MAX. CONT. SPEED	[rpm]	250	220	210	190
PEAK SPEED (***)	[rpm]	285	250	235	220
MAX. CONT. POWER (****)	[kW]	173	175	185	170
MAX. CONT. POWER WITH FLUSHING	[kW]	215	215	215	200
MAX. CASE PRESSURE	[bar]	6	6	6	6
DRY WEIGHT	[kg]	203	203	203	203
TEMPERATURE RANGE (**)	[°C]	-30÷70	-30÷70	-30÷70	-30÷70

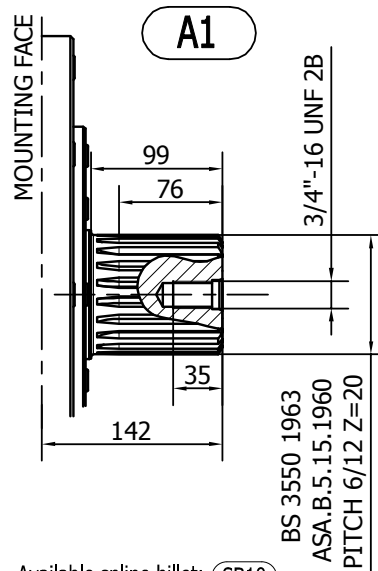
- (\*) The standard distributor (D90) is shown. Please refer to distributors section (pag. 148-149) for different distributor interfaces.
- (\*\*) Please refer to the hydraulic fluid recommendations (pag. 10-11).
- (\*\*\*) Do not exceed maximum continuous power with flushing (see pag. 13).
- (\*\*\*\*) For motor operation with a continuous duty cycle at maximum continuous power the flushing is usually required. For more information please contact our technical department.

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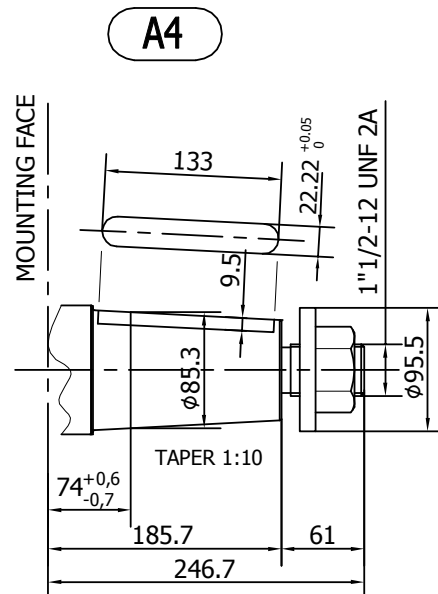
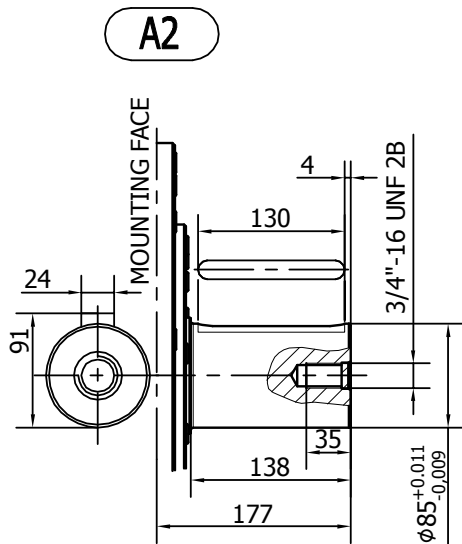
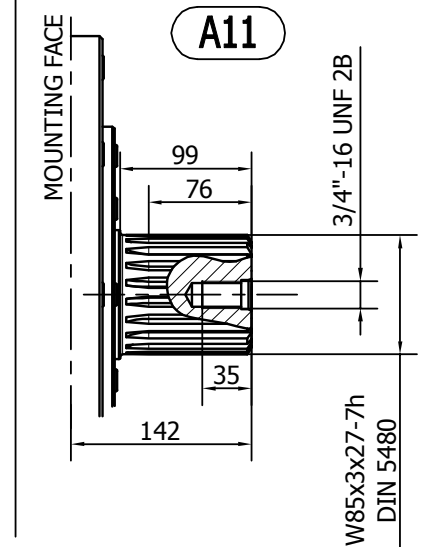
## SHAFT CONFIGURATIONS



Available spline billet: (SB9)



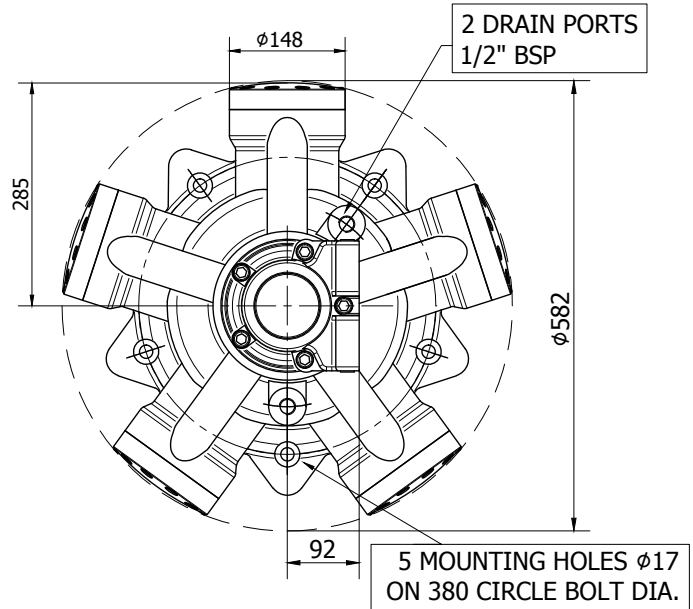
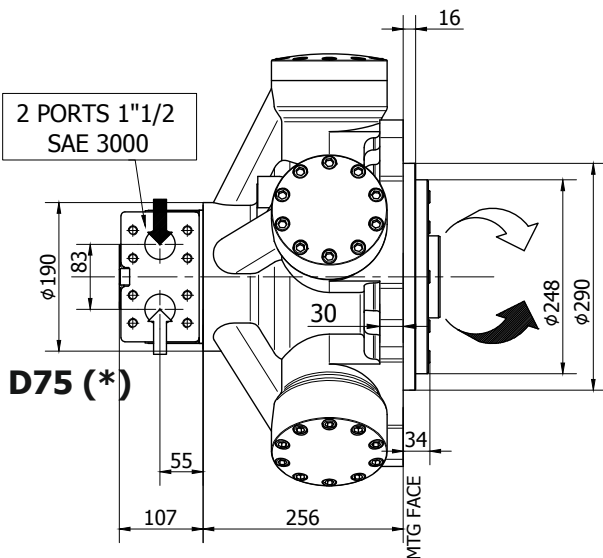
Available spline billet: (SB10)



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**INSTALLATION DRAWING**

Available distributor flange: **FL4**  
refer to page 156 (distributor fitting D75)



**TECHNICAL DATA**

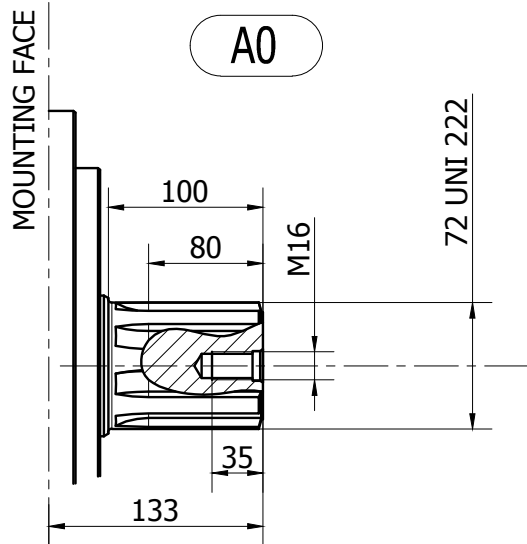
		<b>1800</b>	<b>2100</b>	<b>2300</b>	<b>2400</b>
DISPLACEMENT	[cc]	1800	2066	2293	2393
SPECIFIC TORQUE	[Nm/bar]	28.7	32.9	36,5	38.9
MAX. CONT. PRESSURE	[bar]	250	250	250	240
HYDROSTATIC TEST PRES-SURE	[bar]	420	420	420	420
MAX. CONT. SPEED	[rpm]	250	220	210	190
PEAK SPEED (***)	[rpm]	285	250	235	220
MAX. CONT. POWER (****)	[kW]	173	175	185	170
MAX. CONT. POWER WITH FLUSHING	[kW]	215	215	215	200
MAX. CASE PRESSURE	[bar]	6	6	6	6
DRY WEIGHT	[kg]	203	203	203	203
TEMPERATURE RANGE (**)	[°C]	-30÷70	-30÷70	-30÷70	-30÷70

- (\*) The standard distributor (D75) is shown. Please refer to distributors section (pag. 148-149) for different distributor interfaces.
- (\*\*) Please refer to the hydraulic fluid recommendations (pag. 10-11).
- (\*\*\*) Do not exceed maximum continuous power with flushing (see pag. 13).
- (\*\*\*\*) For motor operation with a continuous duty cycle at maximum continuous power the flushing is usually required. For more information please contact our technical department.

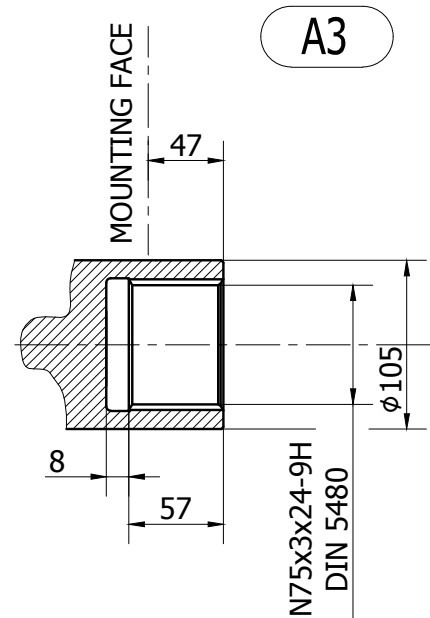
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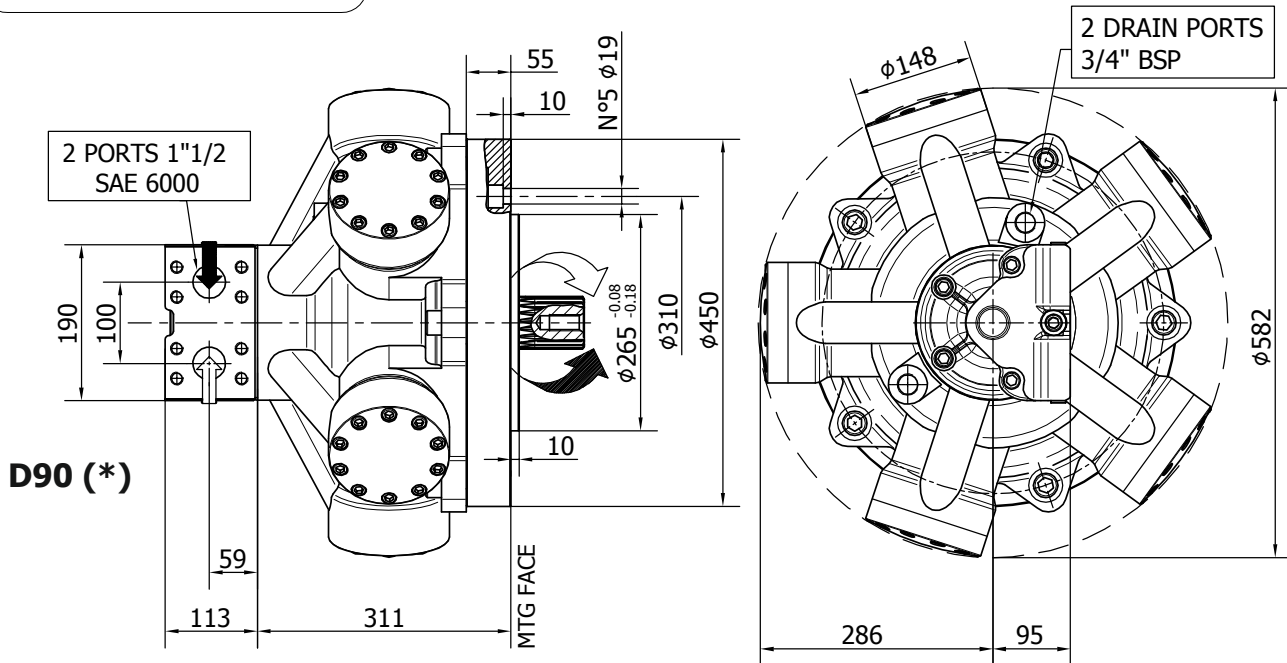
SHAFT CONFIGURATIONS



Available spline billet: **SB8**



**INSTALLATION DRAWING**



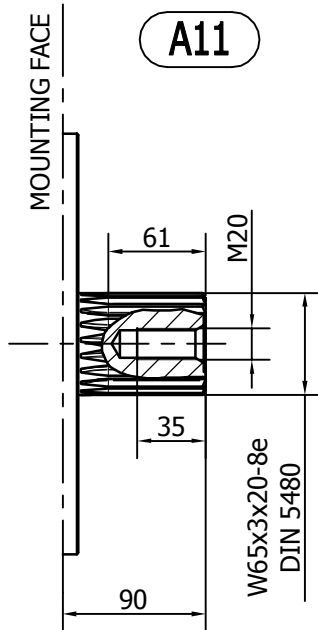
**TECHNICAL DATA**

		1800	2100	2300	2400
DISPLACEMENT	[cc]	1800	2066	2293	2393
SPECIFIC TORQUE	[Nm/bar]	28.7	32.9	36,5	38.9
MAX. CONT. PRESSURE	[bar]	250	250	250	240
HYDROSTATIC TEST PRESSURE	[bar]	420	420	420	420
MAX. CONT. SPEED	[rpm]	250	220	210	190
PEAK SPEED (***)	[rpm]	285	250	235	220
MAX. CONT. POWER (****)	[kW]	173	175	185	170
MAX. CONT. POWER WITH FLUSHING	[kW]	215	215	215	200
MAX. CASE PRESSURE	[bar]	6	6	6	6
DRY WEIGHT	[kg]	203	203	203	203
TEMPERATURE RANGE (**)	[°C]	-30÷70	-30÷70	-30÷70	-30÷70

- (\*) The standard distributor (D90) is shown. Please refer to distributors section (pag. 148-149) for different distributor interfaces.
- (\*\*) Please refer to the hydraulic fluid recommendations (pag. 10-11).
- (\*\*\*) Do not exceed maximum continuous power with flushing (see pag. 13).
- (\*\*\*\*) For motor operation with a continuous duty cycle at maximum continuous power the flushing is usually required. For more information please contact our technical department.

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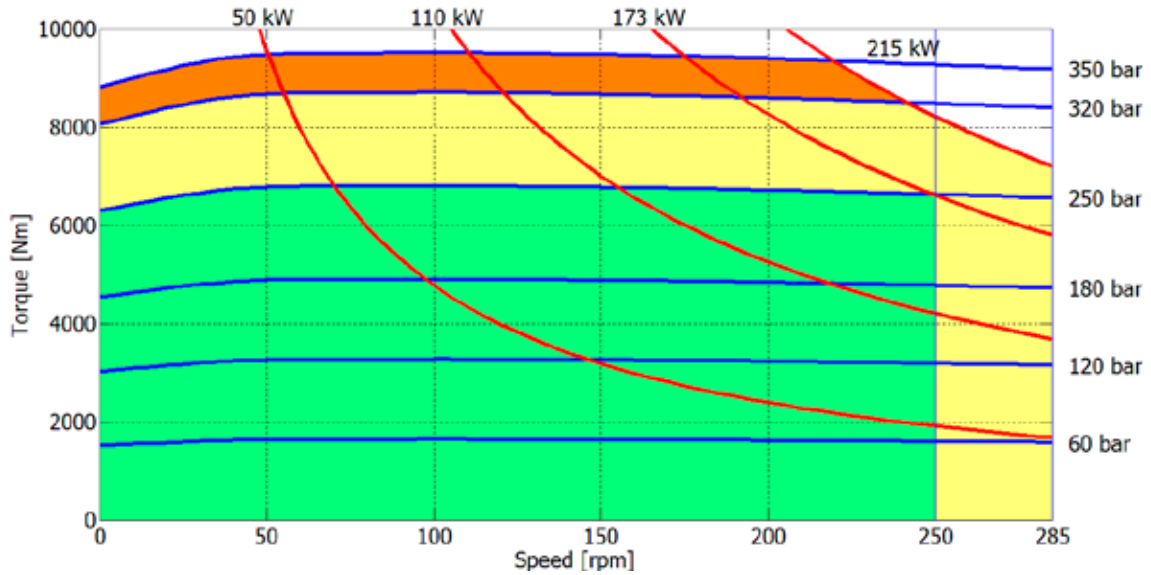
SHAFT CONFIGURATIONS



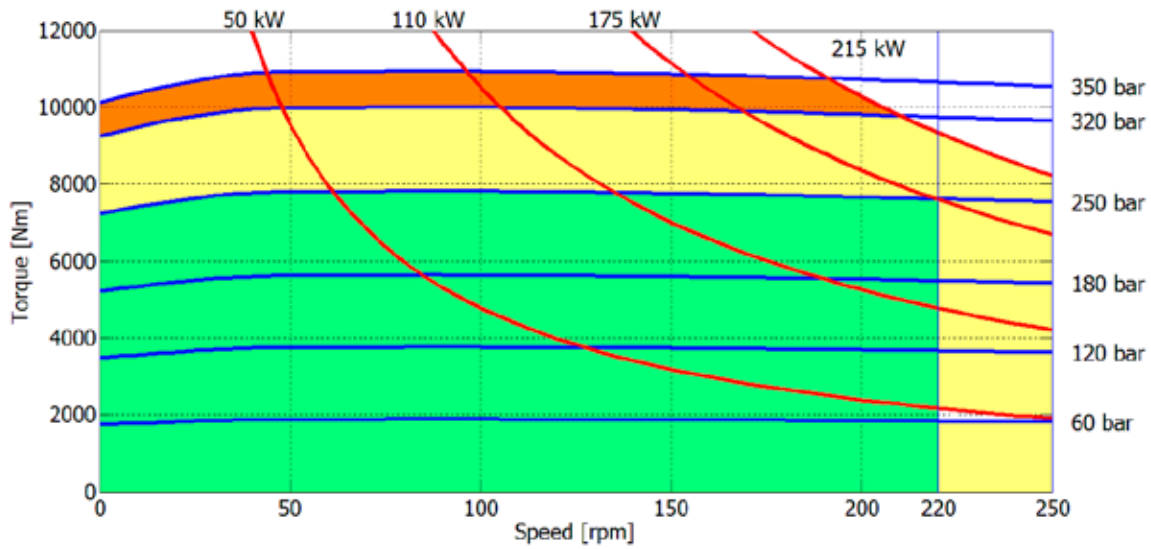
Available spline billet: **SB23**

**IAMD H55- PERFORMANCE DIAGRAMS**

**1800 cc**



**2100 cc**

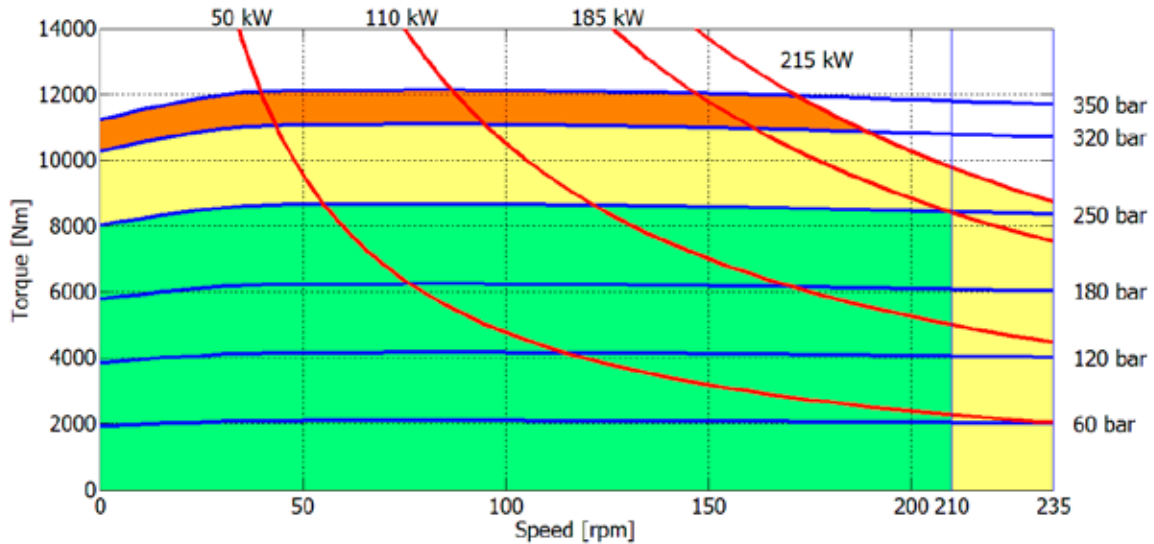


- Continuous operation
- Continuous operation with flushing or intermittent operation (see below for intermittent operation)
- Intermittent operation: permitted for a 15% of duty cycle, for 3 minutes maximum period
- Peak operation: permitted for very short periods (3-5 seconds every 10-15 minutes)

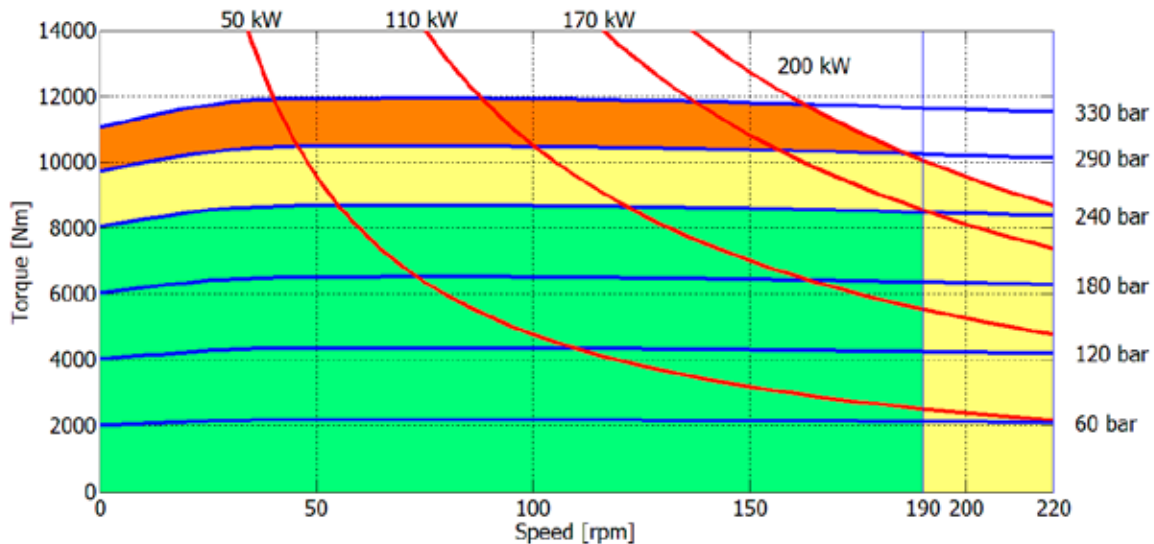
**The above diagrams are referring to the hydraulic motor working with a fluid in ideal conditions (viscosity at 40 cSt).** In case the working temperature increases and viscosity reach values under the recommended values (see hydraulic fluid recommendations) flushing must be performed or ISO oil grade must be changed. The working temperature must not overcome 70 °C.

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## 2300 cc



## 2400 cc

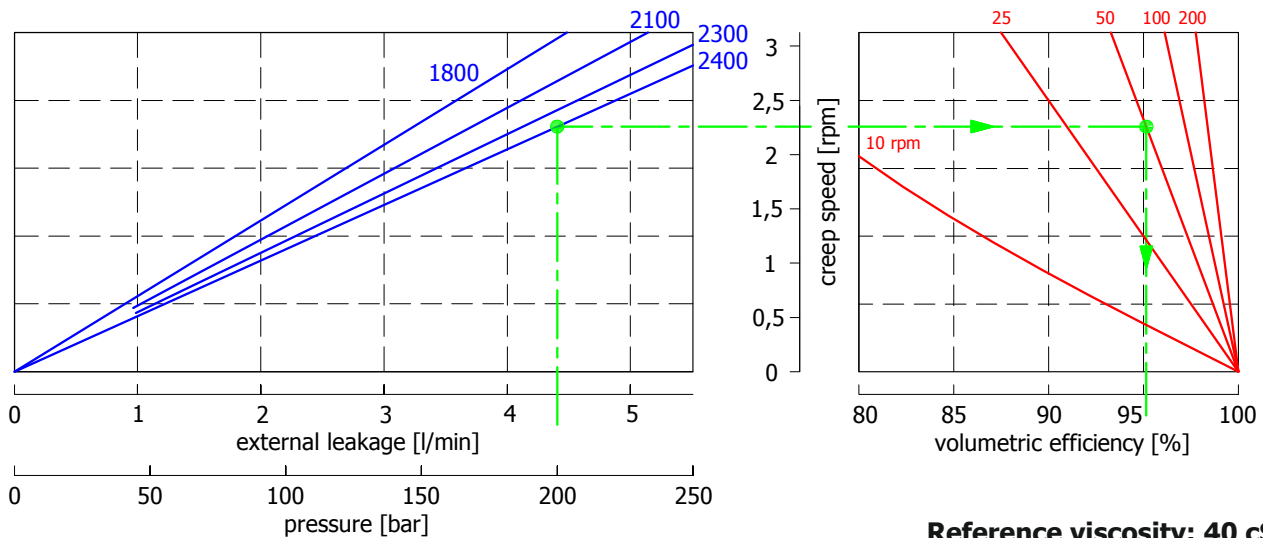


- Continuous operation
- Continuous operation with flushing or intermittent operation (see below for intermittent operation)
- Intermittent operation: permitted for a 15% of duty cycle, for 3 minutes maximum period
- Peak operation: permitted for very short periods (3-5 seconds every 10-15 minutes)

**The above diagrams are referring to the hydraulic motor working with a fluid in ideal conditions (viscosity at 40 cSt).** In case the working temperature increases and viscosity reach values under the recommended values (see hydraulic fluid recommendations) flushing must be performed or ISO oil grade must be changed. The working temperature must not overcome 70 °C.

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**CREEP SPEED - VOLUMETRIC EFFICIENCY**

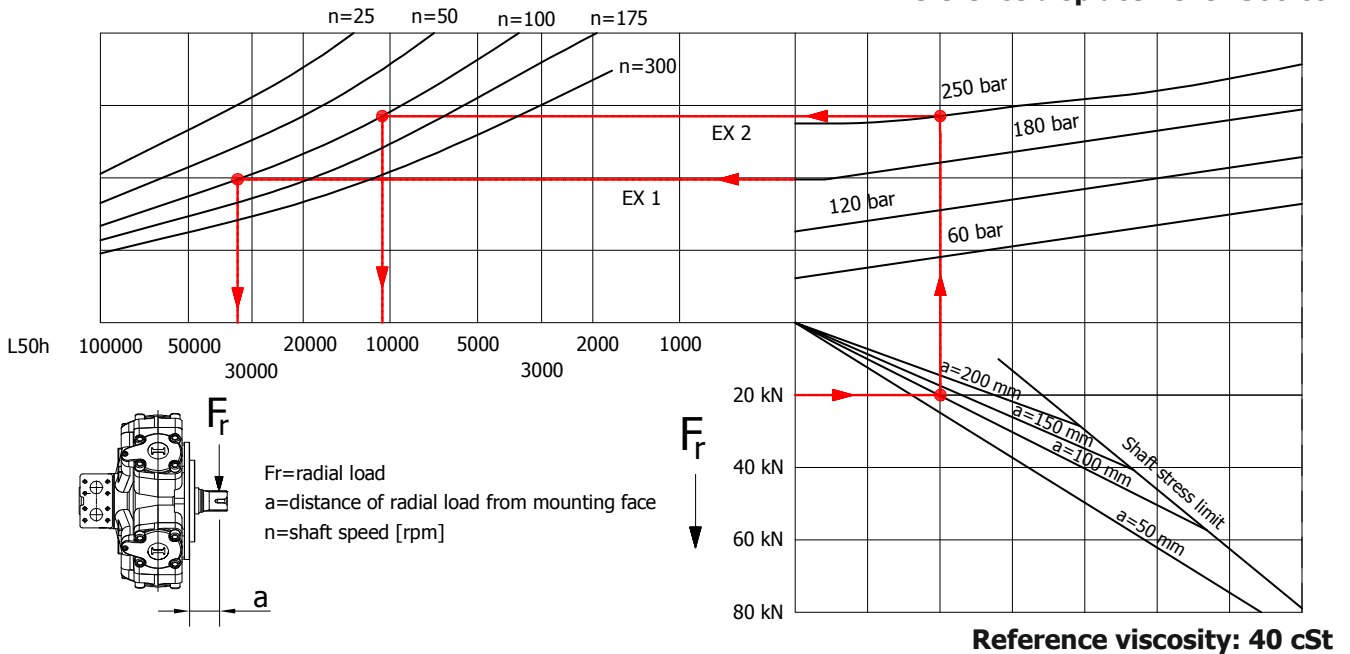


Example:

We suppose (2400 cc):  $p=200$  [bar], we obtain: external leakage 4,3 [l/min], shaft creep speed 2,3 [rpm].  
If we suppose (2400 cc):  $p=200$  [bar] and  $n=50$  [rpm] we obtain a volumetric efficiency of 95%;

**BEARING LIFE**

**Reference displacement 2300 cc**

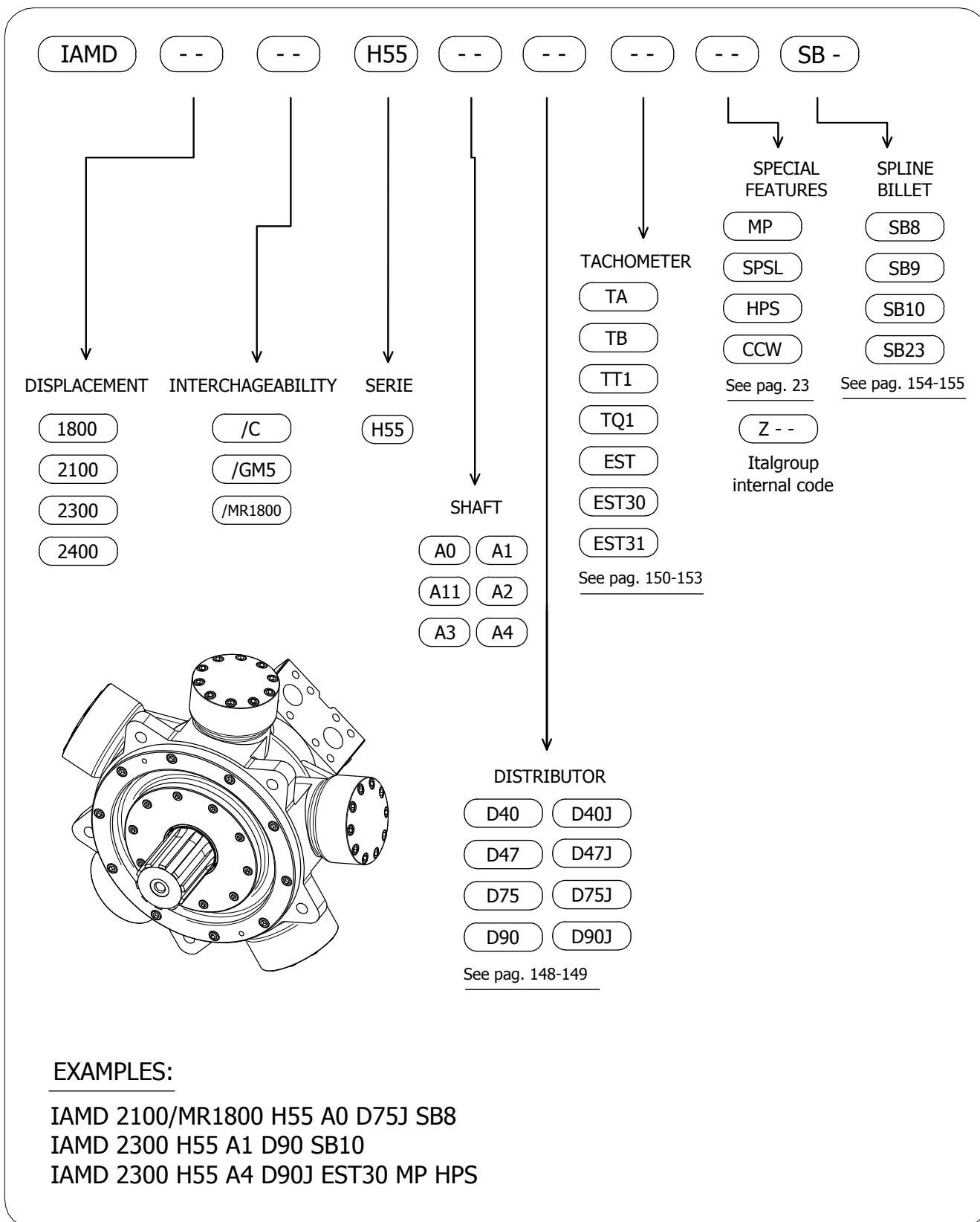


Example:

We suppose (EX1):  $p=180$  [bar],  $n=100$  [rpm]; we obtain an average lifetime of 33000 [h].  
If we suppose (EX2):  $F_r=20$  [kN],  $a=100$  [mm],  $n=100$  [rpm] and  $p=250$  [bar] we obtain an average life-time of 11000 [h].

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# IAMD H55 - ORDERING CODE



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**ITALGROUP SRL**  
**IAMD SERIES - IAMD H6**  
**GENERAL CATALOGUE**

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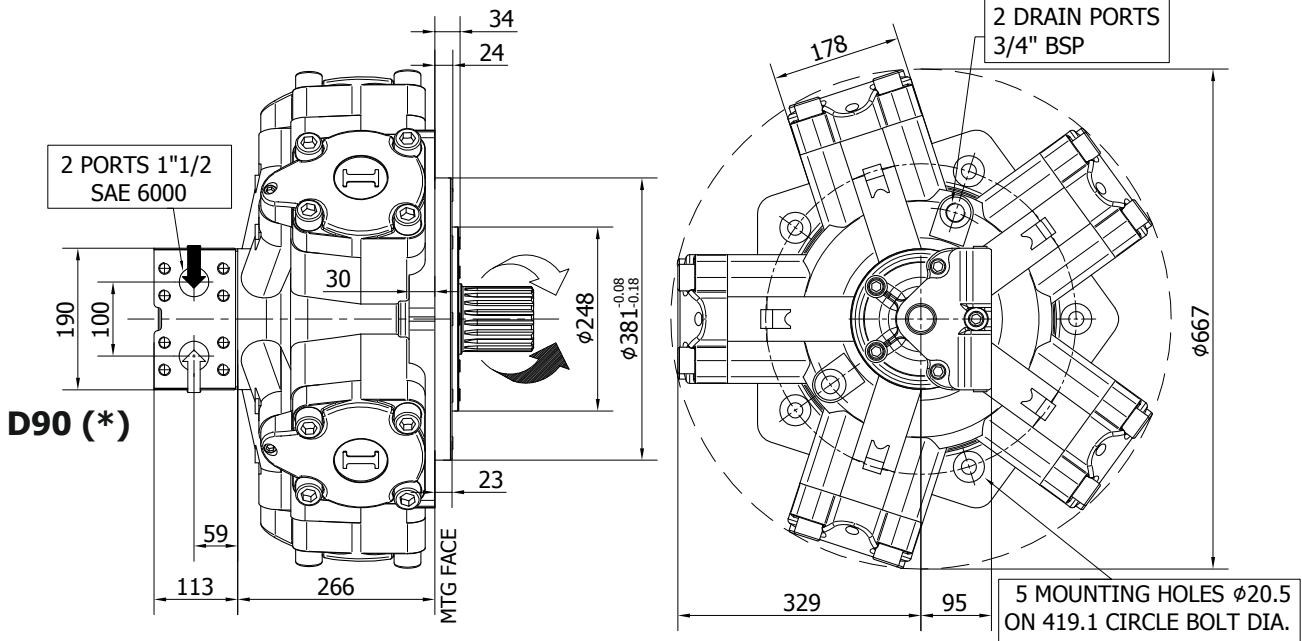
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**INSTALLATION DRAWING**

Available distributor flange: **FL7**  
for S04, refer to page 157 (distributor fitting D90)



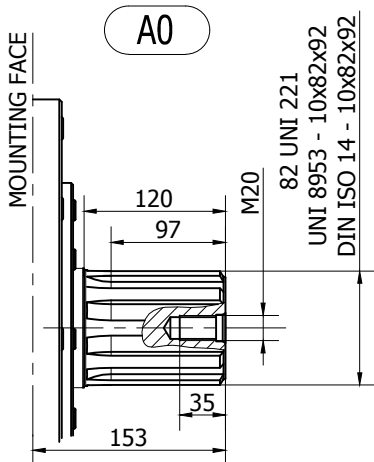
**TECHNICAL DATA**

		<b>1800</b>	<b>2000</b>	<b>2200</b>	<b>2500</b>	<b>2800</b>	<b>3000</b>	<b>3200</b>	<b>3500</b>
DISPLACEMENT	[cc]	1866	1993	2126	2525	2807	2983	3289	3479
SPECIFIC TORQUE	[Nm/bar]	29.7	31.7	35.1	40.2	44.7	47.5	52.4	55.4
MAX. CONT. PRESSURE	[bar]	270	270	270	270	270	270	270	270
HYDROSTATIC TEST PRES-SURE	[bar]	420	420	420	420	420	420	420	420
MAX. CONT. SPEED	[rpm]	350	350	325	285	250	235	210	200
PEAK SPEED (***)	[rpm]	400	400	375	325	290	270	240	230
MAX. CONT. POWER (****)	[kW]	210	210	210	210	210	210	210	210
MAX. CONT. POWER WITH FLUSHING	[kW]	235	235	235	235	235	235	235	235
MAX. CASE PRESSURE	[bar]	6	6	6	6	6	6	6	6
DRY WEIGHT	[kg]	308	308	308	308	308	308	308	308
TEMPERATURE RANGE (**)	[°C]	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70

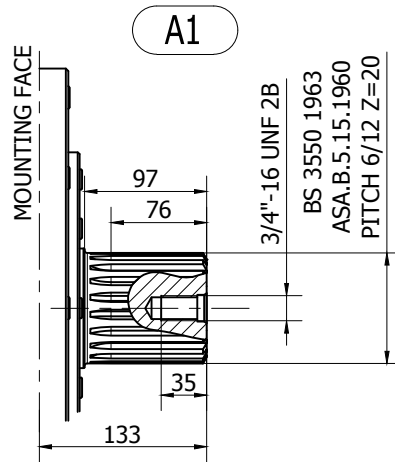
- (\*) The standard distributor (D90) is shown. Please refer to distributors section (pag. 148-149) for different distributor interfaces.
- (\*\*) Please refer to the hydraulic fluid recommendations (pag. 10-11).
- (\*\*\*) Do not exceed maximum continuous power with flushing (see pag. 13).
- (\*\*\*\*) For motor operation with a continuous duty cycle at maximum continuous power the flushing is usually required. For more information please contact our technical department.

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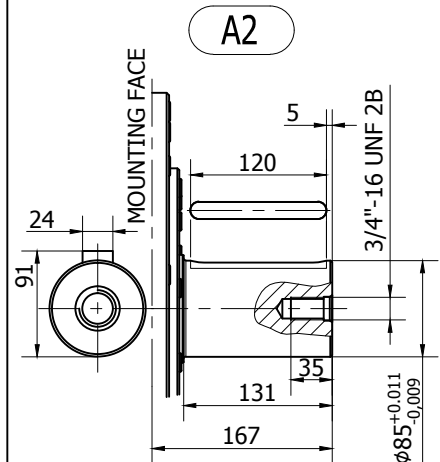
SHAFT CONFIGURATIONS



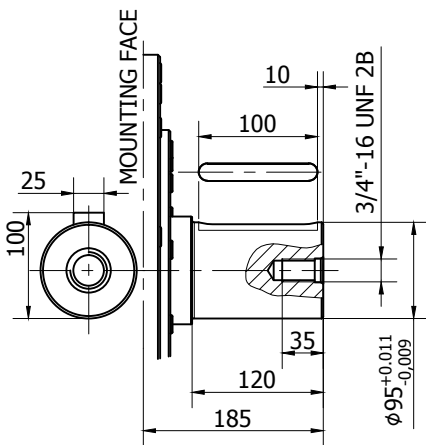
Available spline billet: **SB9**



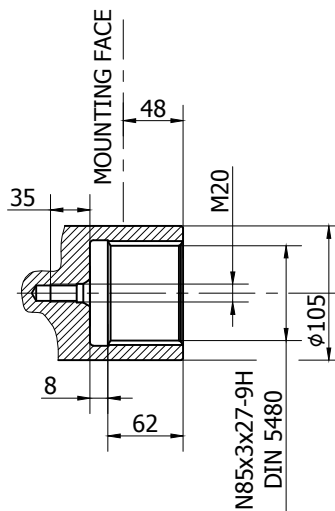
Available spline billet: **SB10**



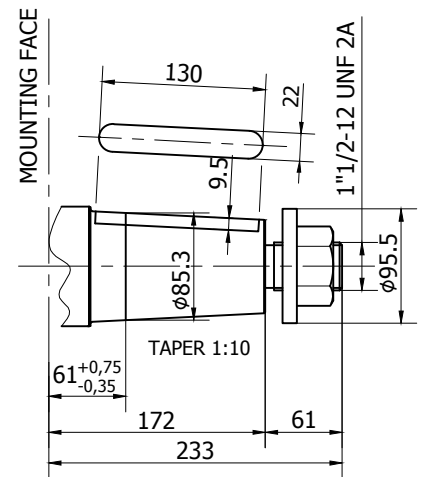
**A21**



**A3**



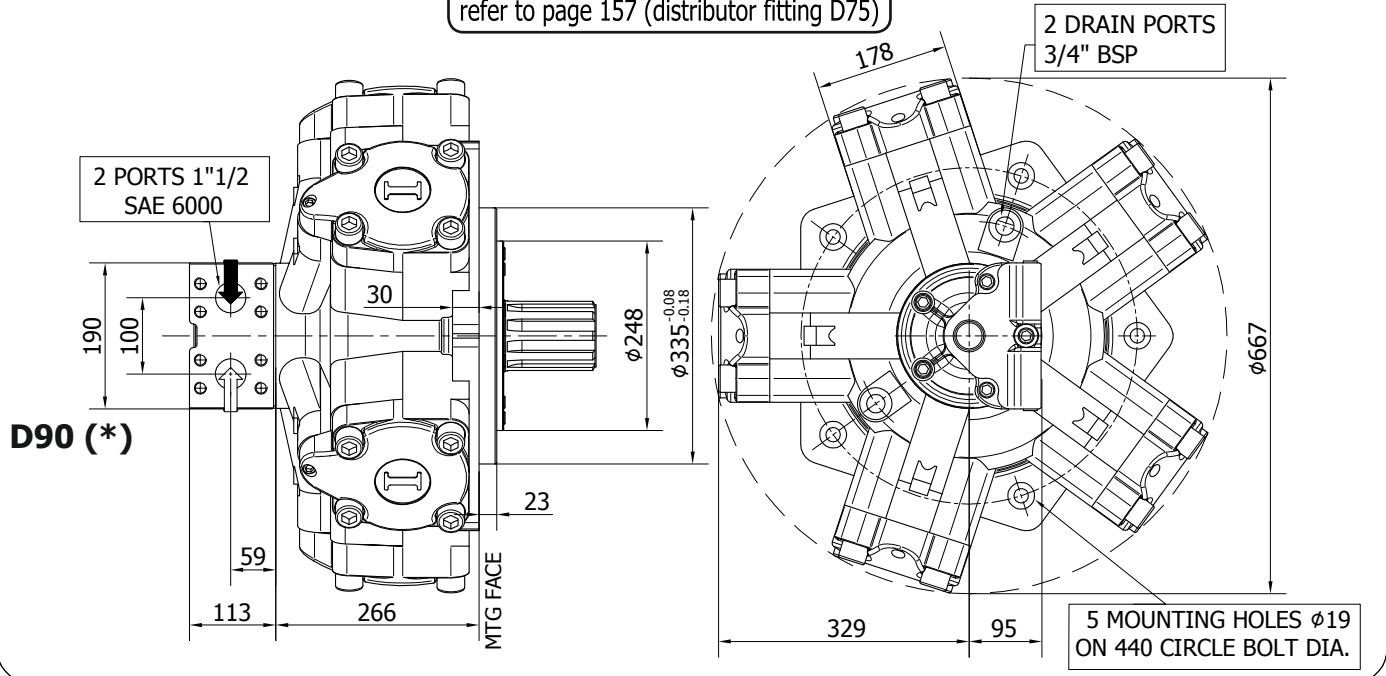
**A4**



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**INSTALLATION DRAWING**

Available distributor flange: **FL10**  
refer to page 157 (distributor fitting D75)



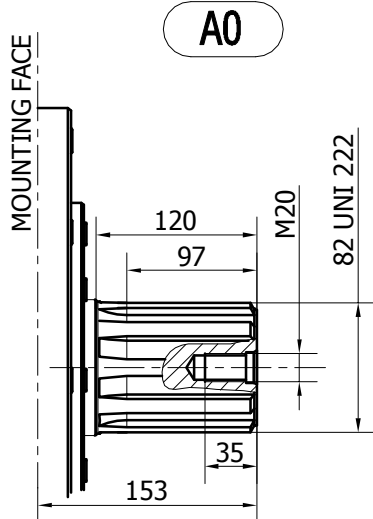
**TECHNICAL DATA**

		1800	2000	2200	2500	2800	3000	3200	3500
DISPLACEMENT	[cc]	1866	1993	2126	2525	2807	2983	3289	3479
SPECIFIC TORQUE	[Nm/bar]	29.7	31.7	35.1	40.2	44.7	47.5	52.4	55.4
MAX. CONT. PRESSURE	[bar]	270	270	270	270	270	270	270	270
HYDROSTATIC TEST PRESSURE	[bar]	420	420	420	420	420	420	420	420
MAX. CONT. SPEED	[rpm]	350	350	325	285	250	235	210	200
PEAK SPEED (***)	[rpm]	400	400	375	325	290	270	240	230
MAX. CONT. POWER (****)	[kW]	210	210	210	210	210	210	210	210
MAX. CONT. POWER WITH FLUSHING	[kW]	235	235	235	235	235	235	235	235
MAX. CASE PRESSURE	[bar]	6	6	6	6	6	6	6	6
DRY WEIGHT	[kg]	308	308	308	308	308	308	308	308
TEMPERATURE RANGE (**)	[°C]	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70

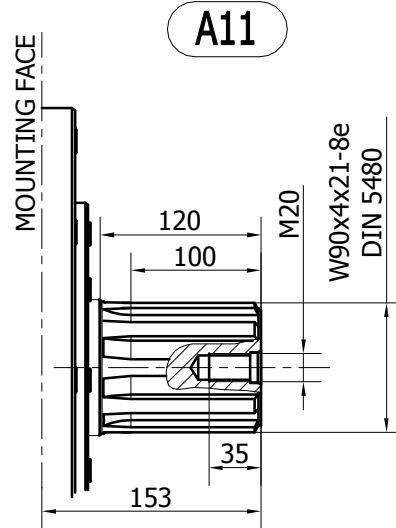
- (\*) The standard distributor (D90) is shown. Please refer to distributors section (pag. 148-149) for different distributor interfaces.
- (\*\*) Please refer to the hydraulic fluid recommendations (pag. 10-11).
- (\*\*\*) Do not exceed maximum continuous power with flushing (see pag. 13).
- (\*\*\*\*) For motor operation with a continuous duty cycle at maximum continuous power the flushing is usually required. For more information please contact our technical department.

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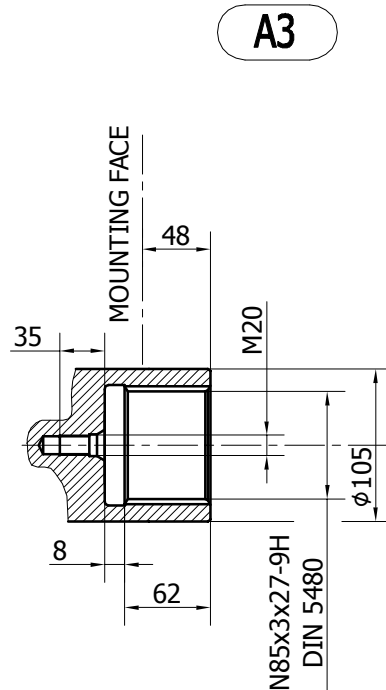
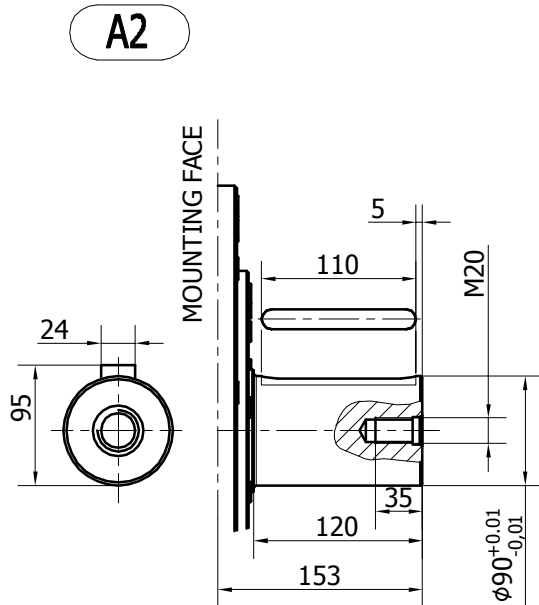
SHAFT CONFIGURATIONS



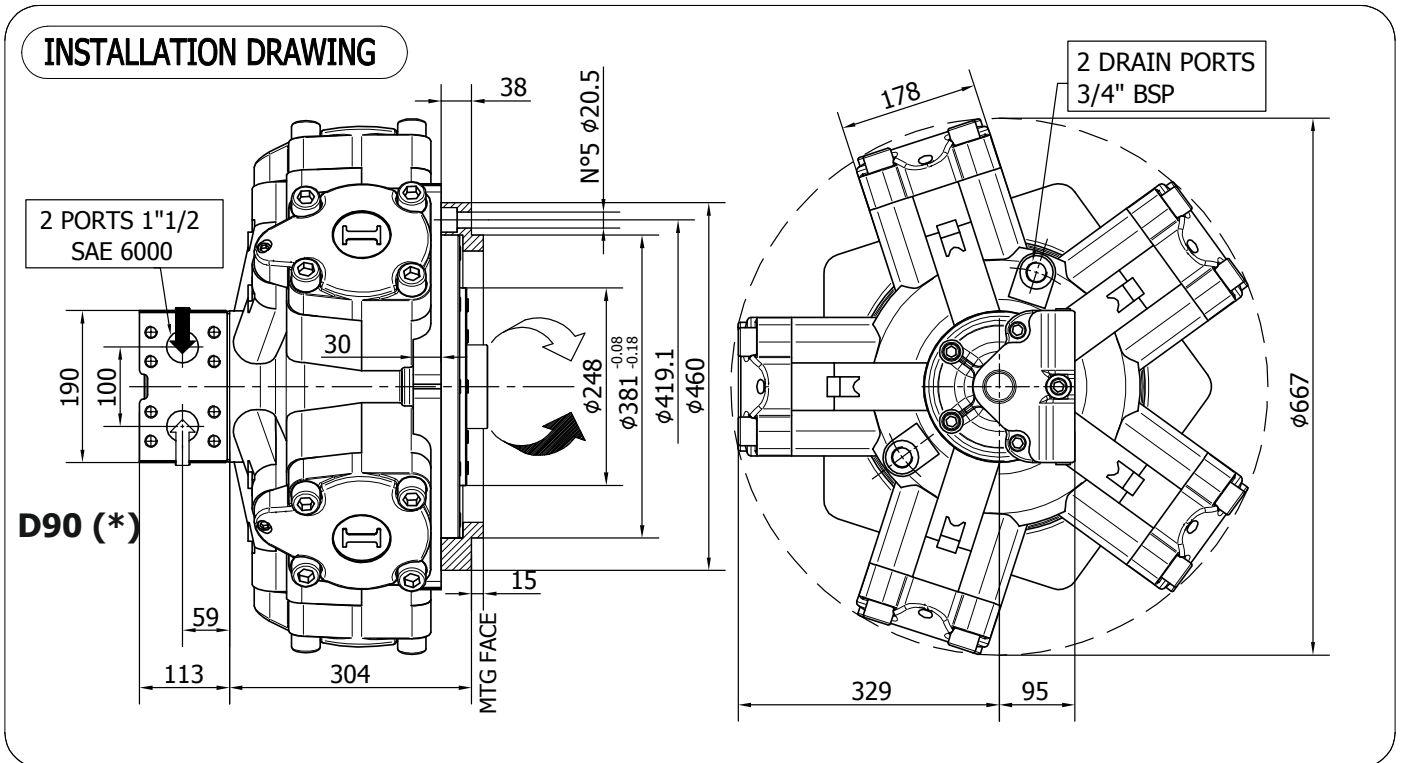
Available spline billet: **SB9**



Available spline billet: **SB26**



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**TECHNICAL DATA**

		<b>1800</b>	<b>2000</b>	<b>2200</b>	<b>2500</b>	<b>2800</b>	<b>3000</b>	<b>3200</b>	<b>3500</b>
DISPLACEMENT	[cc]	1866	1993	2126	2525	2807	2983	3289	3479
SPECIFIC TORQUE	[Nm/bar]	29.7	31.7	35.1	40.2	44.7	47.5	52.4	55.4
MAX. CONT. PRESSURE	[bar]	270	270	270	270	270	270	270	270
HYDROSTATIC TEST PRESSURE	[bar]	420	420	420	420	420	420	420	420
MAX. CONT. SPEED	[rpm]	350	350	325	285	250	235	210	200
PEAK SPEED (***)	[rpm]	400	400	375	325	290	270	240	230
MAX. CONT. POWER (****)	[kW]	210	210	210	210	210	210	210	210
MAX. CONT. POWER WITH FLUSHING	[kW]	235	235	235	235	235	235	235	235
MAX. CASE PRESSURE	[bar]	6	6	6	6	6	6	6	6
DRY WEIGHT	[kg]	308	308	308	308	308	308	308	308
TEMPERATURE RANGE (**)	[°C]	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70

- (\*) The standard distributor (D90) is shown. Please refer to distributors section (pag. 148-149) for different distributor interfaces.

- (\*\*) Please refer to the hydraulic fluid recommendations (pag. 10-11).

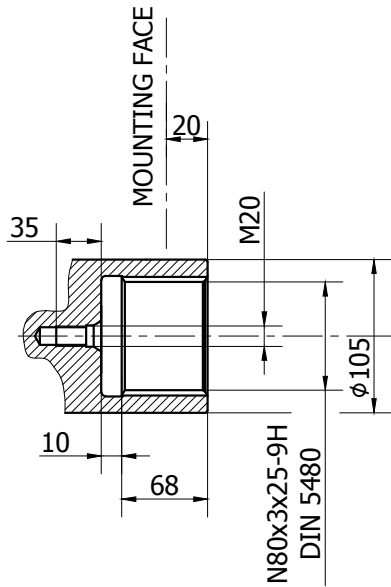
- (\*\*\*) Do not exceed maximum continuous power with flushing (see pag. 13).

- (\*\*\*\*) For motor operation with a continuous duty cycle at maximum continuous power the flushing is usually required. For more information please contact our technical department.

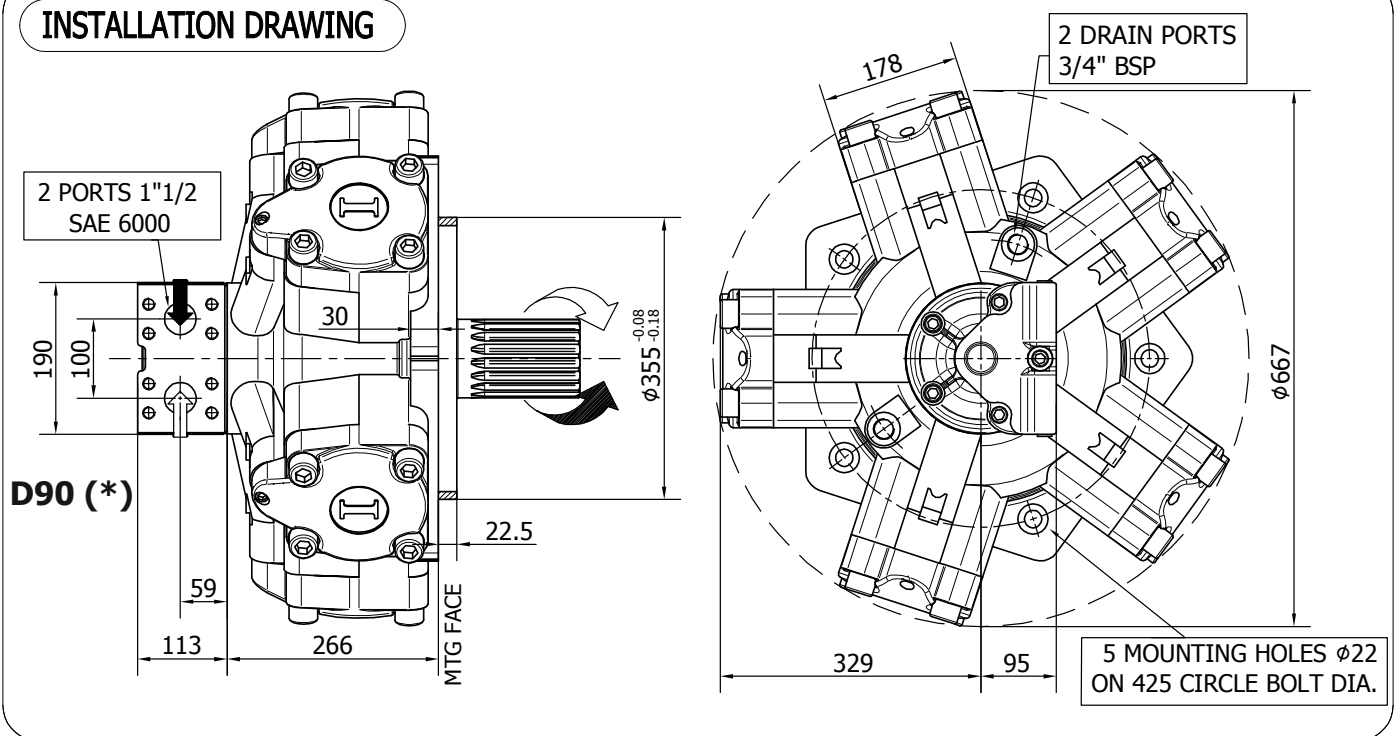
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SHAFT CONFIGURATIONS

A32



**INSTALLATION DRAWING**



**TECHNICAL DATA**

		<b>1800</b>	<b>2000</b>	<b>2200</b>	<b>2500</b>	<b>2800</b>	<b>3000</b>	<b>3200</b>	<b>3500</b>
DISPLACEMENT	[cc]	1866	1993	2126	2525	2807	2983	3289	3479
SPECIFIC TORQUE	[Nm/bar]	29.7	31.7	35.1	40.2	44.7	47.5	52.4	55.4
MAX. CONT. PRESSURE	[bar]	270	270	270	270	270	270	270	270
HYDROSTATIC TEST PRESSURE	[bar]	420	420	420	420	420	420	420	420
MAX. CONT. SPEED	[rpm]	350	350	325	285	250	235	210	200
PEAK SPEED (***)	[rpm]	400	400	375	325	290	270	240	230
MAX. CONT. POWER (****)	[kW]	210	210	210	210	210	210	210	210
MAX. CONT. POWER WITH FLUSHING	[kW]	235	235	235	235	235	235	235	235
MAX. CASE PRESSURE	[bar]	6	6	6	6	6	6	6	6
DRY WEIGHT	[kg]	308	308	308	308	308	308	308	308
TEMPERATURE RANGE (**)	[°C]	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70

- (\*) The standard distributor (D90) is shown. Please refer to distributors section (pag. 148-149) for different distributor interfaces.

- (\*\*) Please refer to the hydraulic fluid recommendations (pag. 10-11).

- (\*\*\*) Do not exceed maximum continuous power with flushing (see pag. 13).

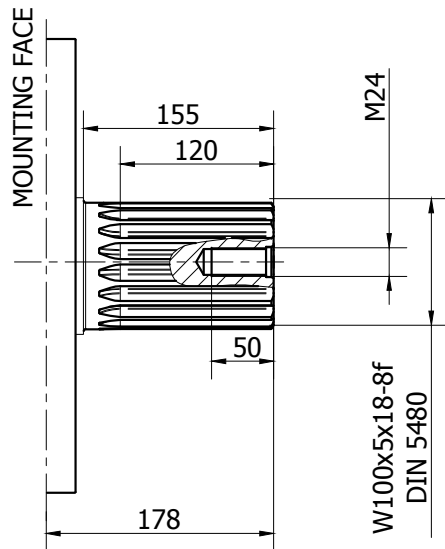
- (\*\*\*\*) For motor operation with a continuous duty cycle at maximum continuous power the flushing is usually required. For more information please contact our technical department.

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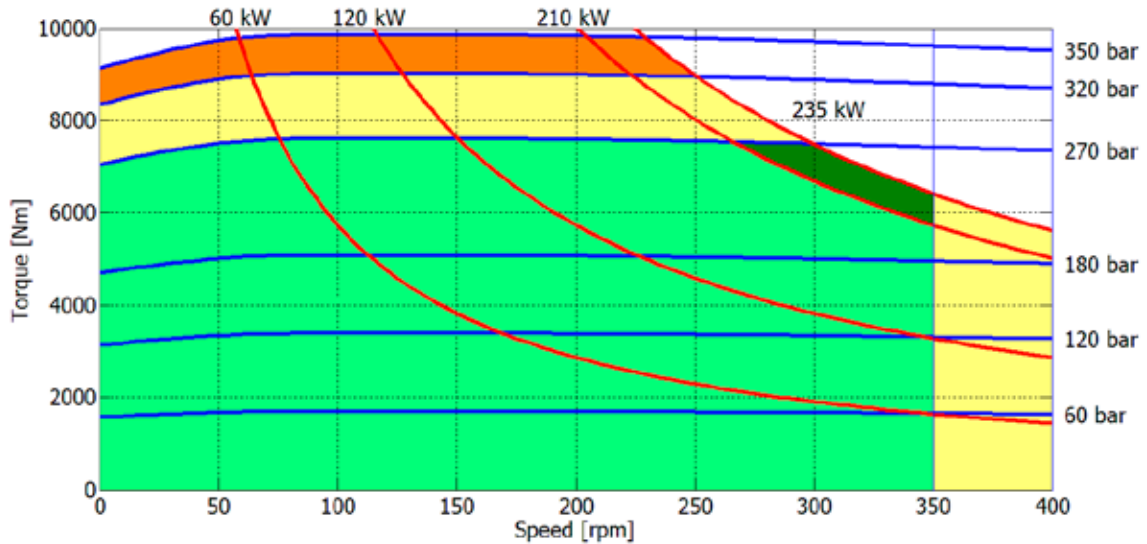


SHAFT CONFIGURATIONS

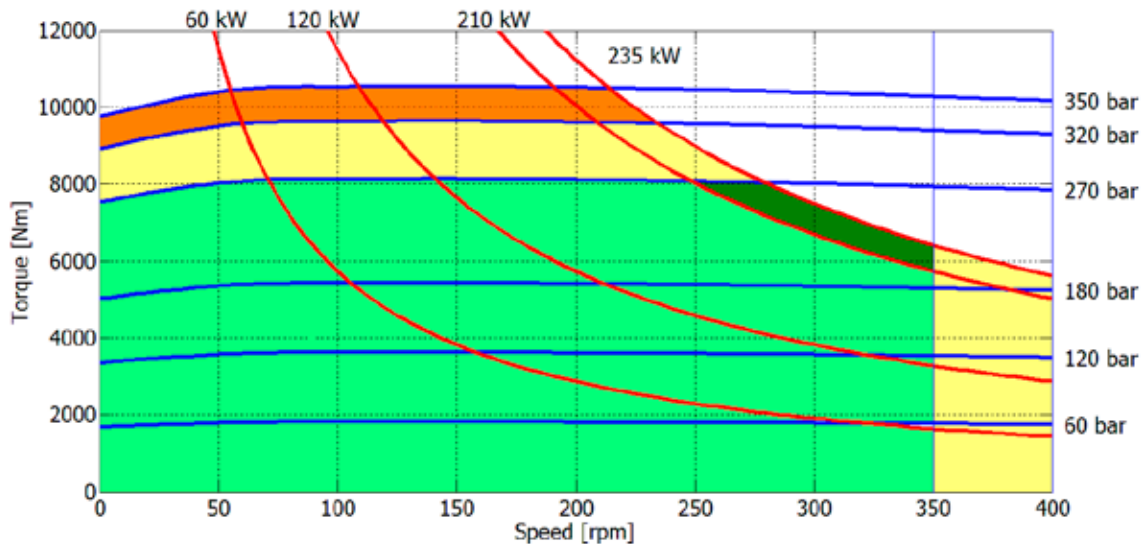
A13



**1800 cc**



**2000 cc**



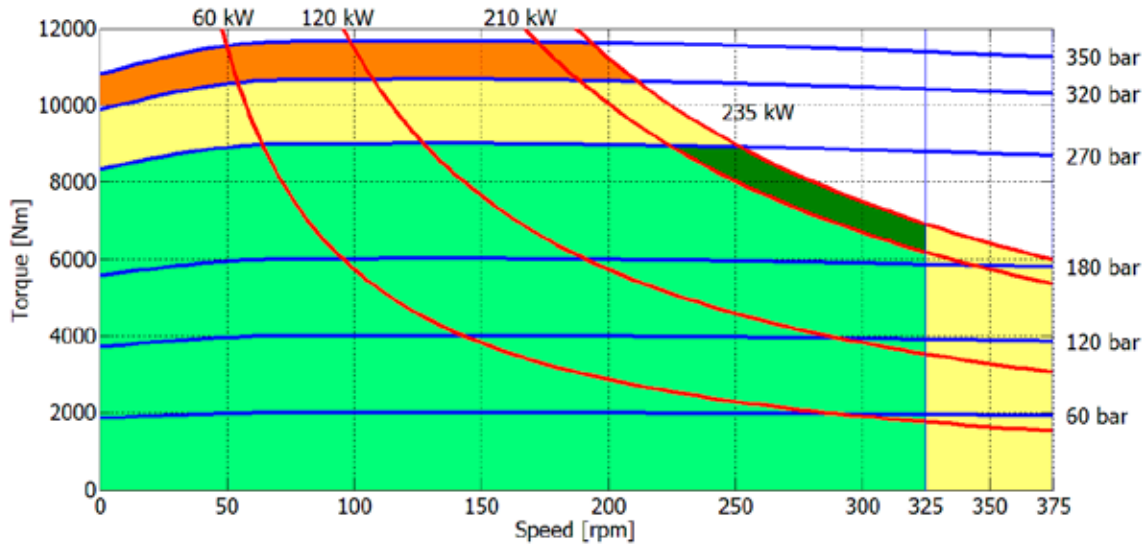
- Continuous operation
- Continuous operation with flushing or intermittent operation (see below for intermittent operation)
- Intermittent operation: permitted for a 15% of duty cycle, for 3 minutes maximum period
- Peak operation: permitted for very short periods (3-5 seconds every 10-15 minutes)

**The above diagrams are referring to the hydraulic motor working with a fluid in ideal conditions (viscosity at 40 cSt).** In case the working temperature increases and viscosity reach values under the recommended values (see hydraulic fluid recommendations) flushing must be performed or ISO oil grade must be changed. The working temperature must not overcome 70 °C.

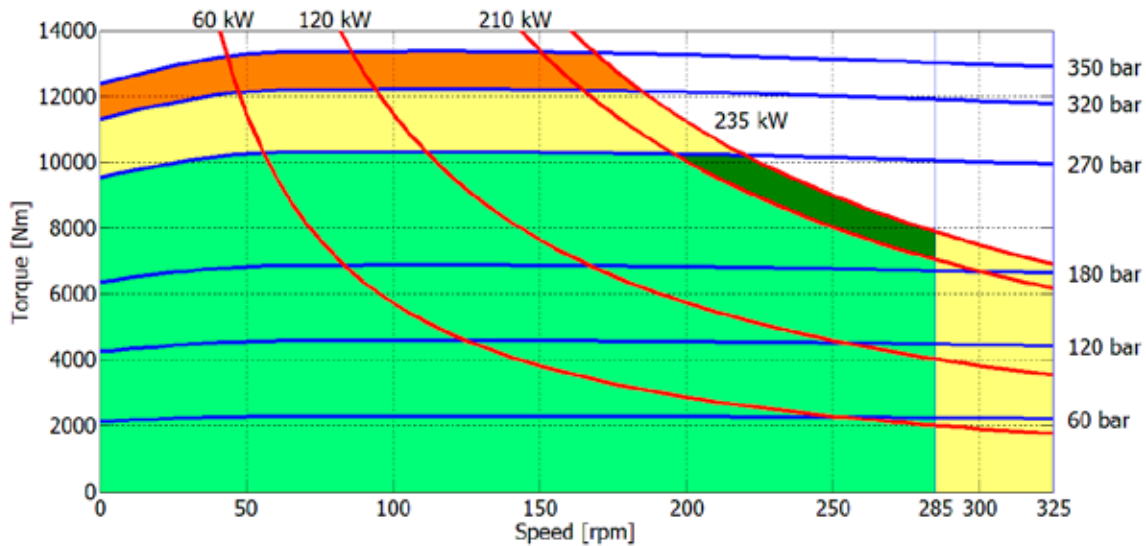
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# IAMD H6 - PERFORMANCE DIAGRAMS

## 2200 cc



## 2500 cc



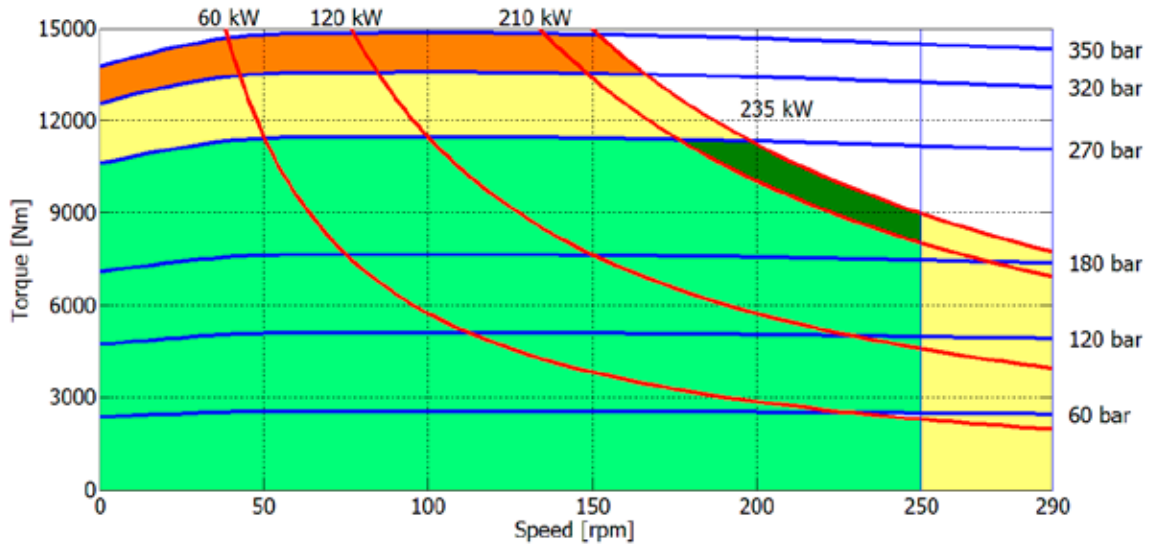
- Continuous operation
- Continuous operation with flushing or intermittent operation (see below for intermittent operation)
- Intermittent operation: permitted for a 15% of duty cycle, for 3 minutes maximum period
- Peak operation: permitted for very short periods (3-5 seconds every 10-15 minutes)

**The above diagrams are referring to the hydraulic motor working with a fluid in ideal conditions (viscosity at 40 cSt).** In case the working temperature increases and viscosity reach values under the recommended values (see hydraulic fluid recommendations) flushing must be performed or ISO oil grade must be changed. The working temperature must not overcome 70 °C.

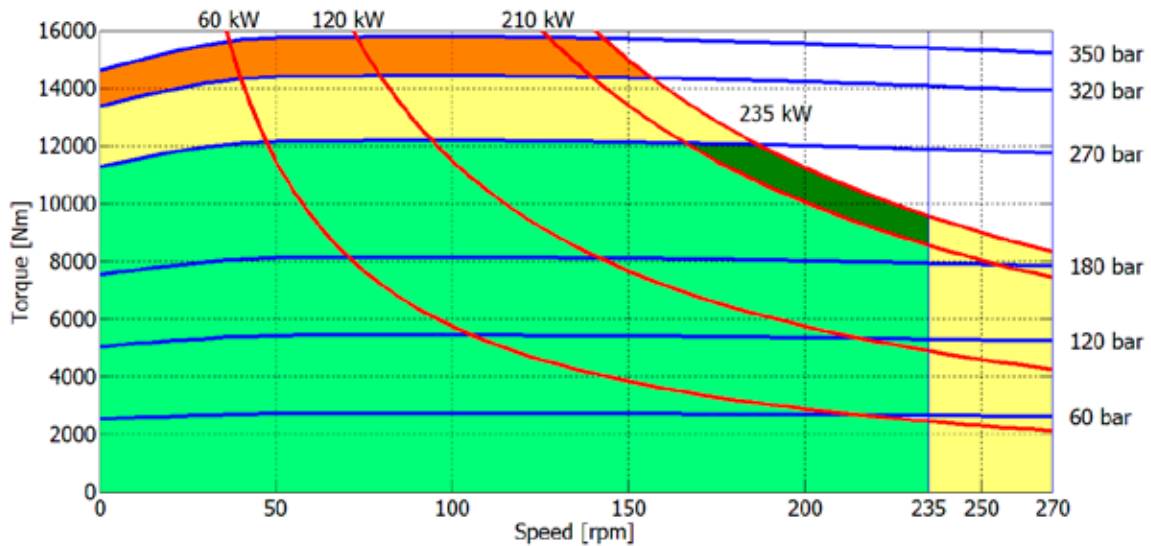
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**IAMD H6 - PERFORMANCE DIAGRAMS**

**2800 cc**



**3000 cc**



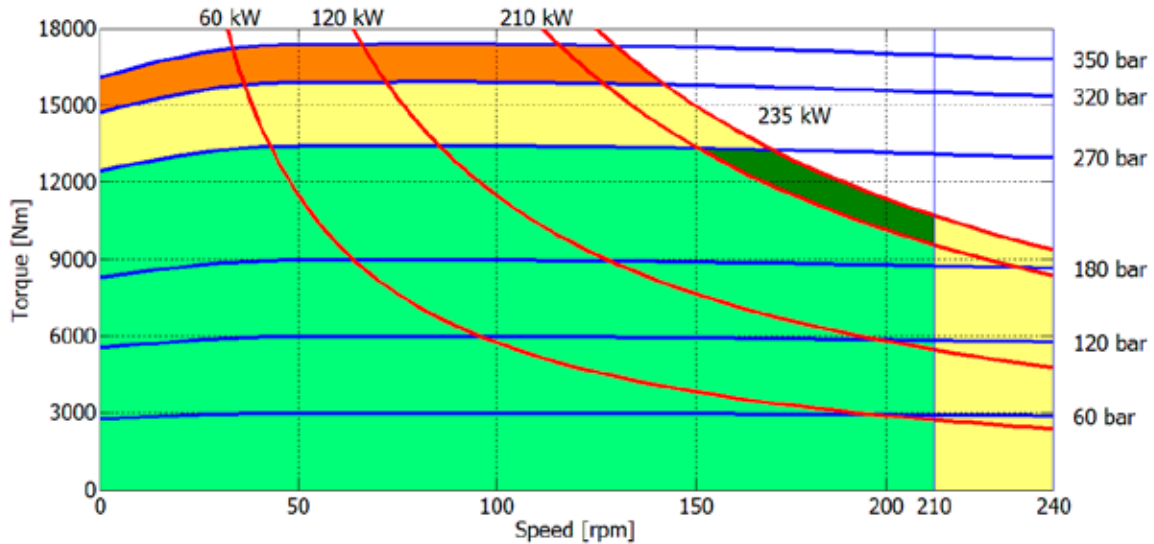
- Continuous operation
- Continuous operation with flushing or intermittent operation (see below for intermittent operation)
- Intermittent operation: permitted for a 15% of duty cycle, for 3 minutes maximum period
- Peak operation: permitted for very short periods (3-5 seconds every 10-15 minutes)

**The above diagrams are referring to the hydraulic motor working with a fluid in ideal conditions (viscosity at 40 cSt).** In case the working temperature increases and viscosity reach values under the recommended values (see hydraulic fluid recommendations) flushing must be performed or ISO oil grade must be changed. The working temperature must not overcome 70 °C.

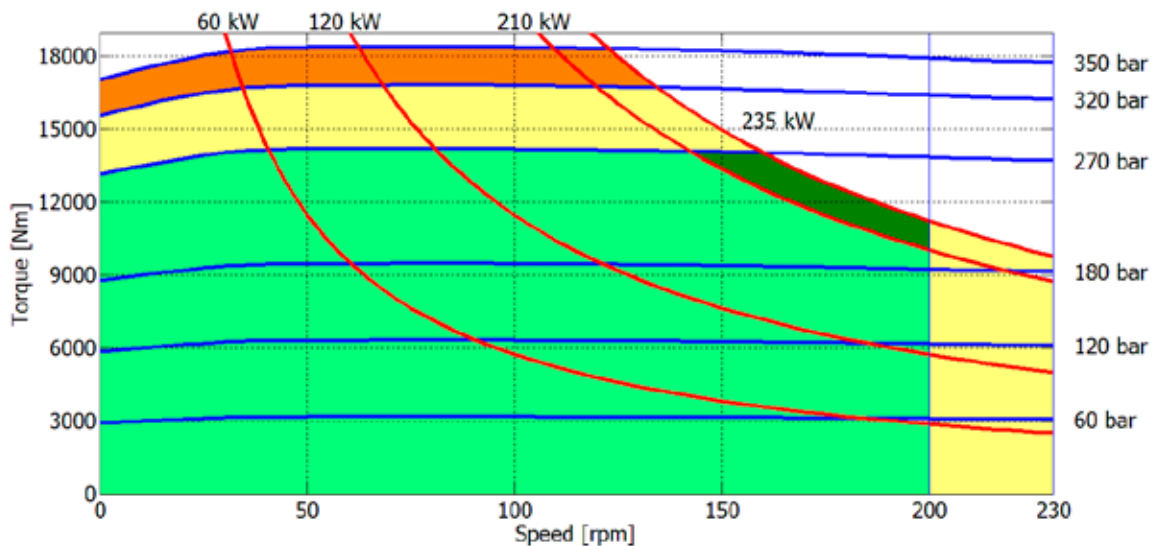
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# IAMD H6 - PERFORMANCE DIAGRAMS

## 3200 cc



## 3500 cc

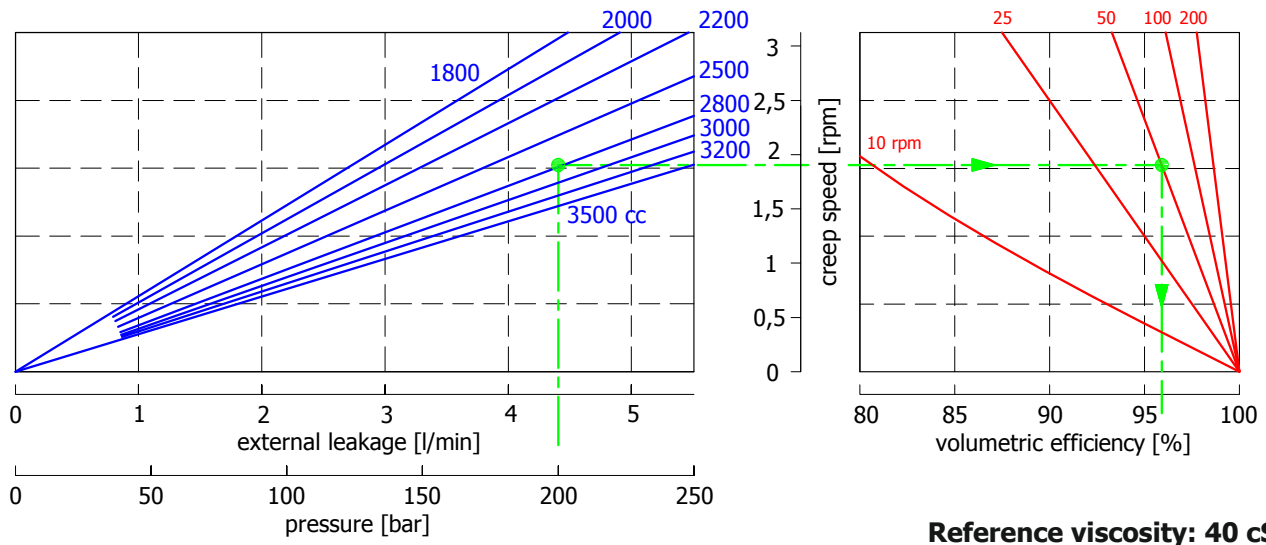


- Continuous operation
- Continuous operation with flushing or intermittent operation (see below for intermittent operation)
- Intermittent operation: permitted for a 15% of duty cycle, for 3 minutes maximum period
- Peak operation: permitted for very short periods (3-5 seconds every 10-15 minutes)

**The above diagrams are referring to the hydraulic motor working with a fluid in ideal conditions (viscosity at 40 cSt).** In case the working temperature increases and viscosity reach values under the recommended values (see hydraulic fluid recommendations) flushing must be performed or ISO oil grade must be changed. The working temperature must not overcome 70 °C.

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**CREEP SPEED - VOLUMETRIC EFFICIENCY**

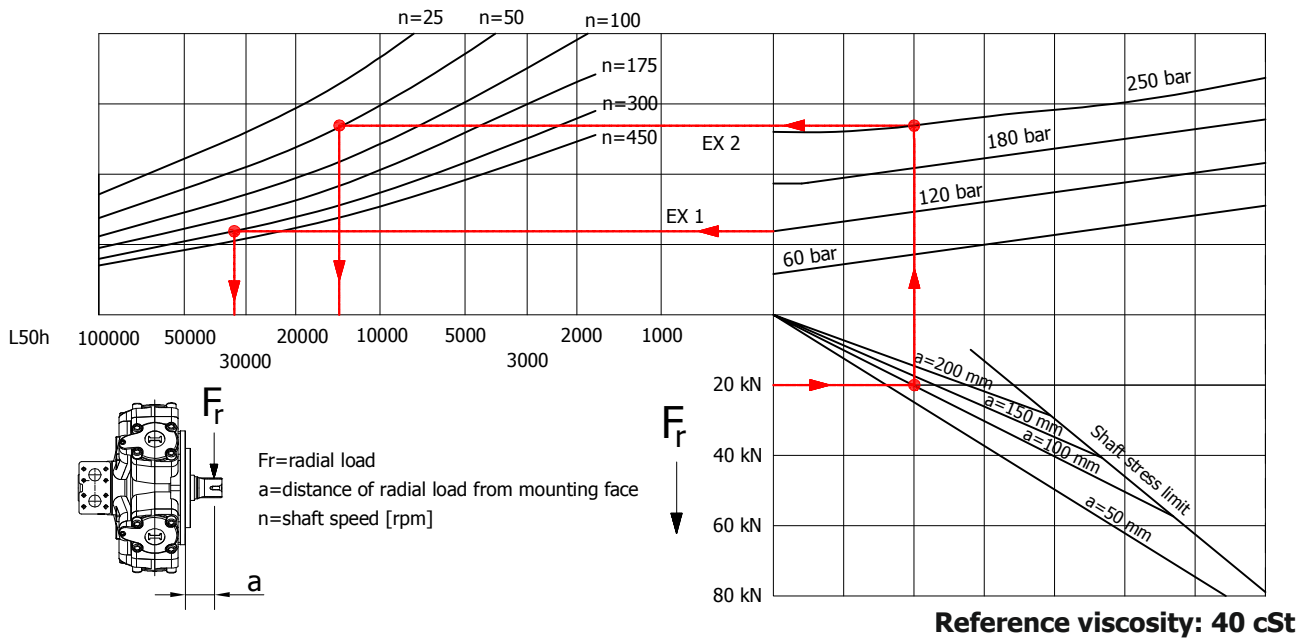


Example:

We suppose (2800 cc):  $p=200$  [bar], we obtain: external leakage 4,3 [l/min], shaft creep speed 1,9 [rpm].  
If we suppose (2800 cc):  $p=200$  [bar] and  $n=50$  [rpm] we obtain a volumetric efficiency of 96%;

**BEARING LIFE**

**Reference displacement 3000 cc**

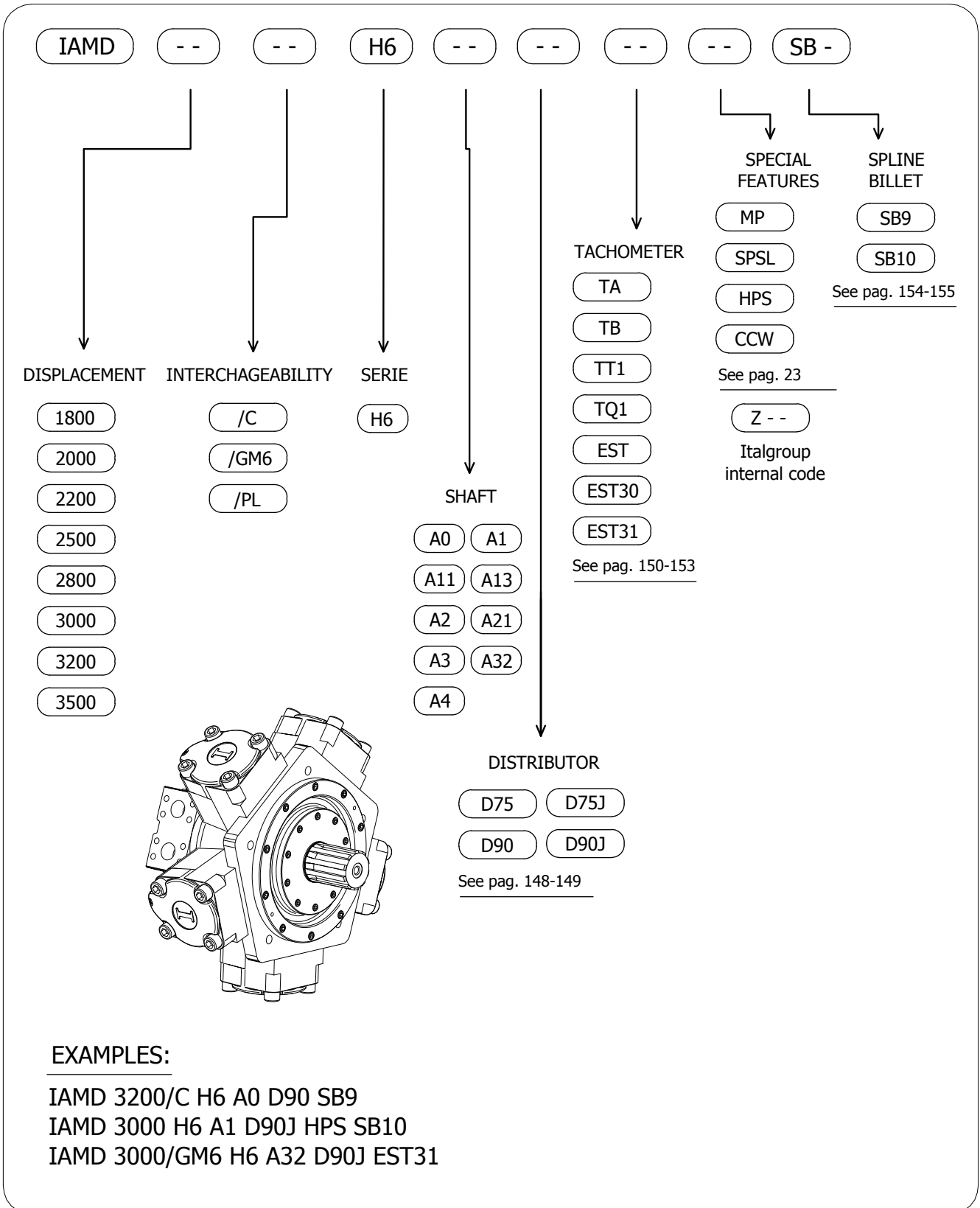


Example:

We suppose (EX1):  $p=120$  [bar],  $n=300$  [rpm]; we obtain an average lifetime of 34000 [h].  
If we suppose (EX2):  $F_r=20$  [kN],  $a=100$  [mm],  $n=50$  [rpm] and  $p=250$  [bar] we obtain an average lifetime of 13000 [h].

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# IAMD H6 - ORDERING CODE



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**ITALGROUP SRL**  
**IAMD SERIES - IAMD H7**  
**GENERAL CATALOGUE**

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**INDEX - IAMD H7**

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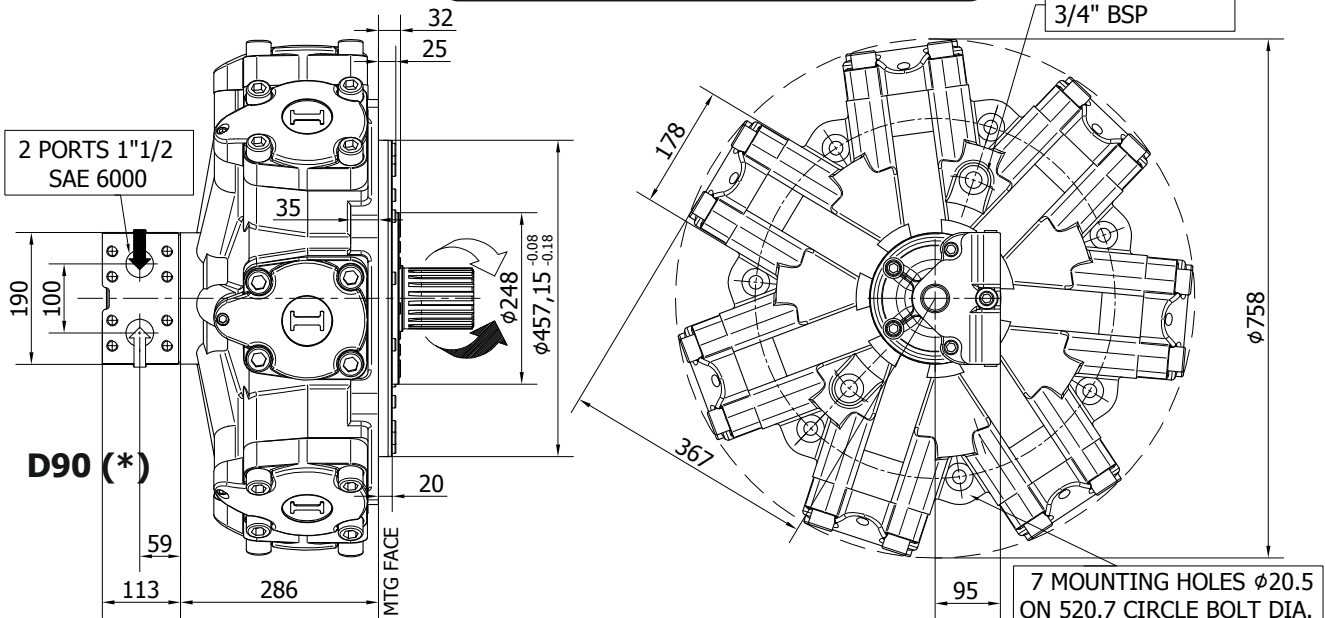
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<u>IAMD H7/RM - INSTALLATION DRAWINGS</u>	„	126 - 127
<u>IAMD H7 - PERFORMANCE DIAGRAMS</u>	„	128 - 132
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**INSTALLATION DRAWING**

Available distributor flange: **FL16**  
for S04, refer to page 157 (distributor fitting D90)

2 DRAIN PORTS  
3/4" BSP

2 PORTS 1"1/2  
SAE 6000



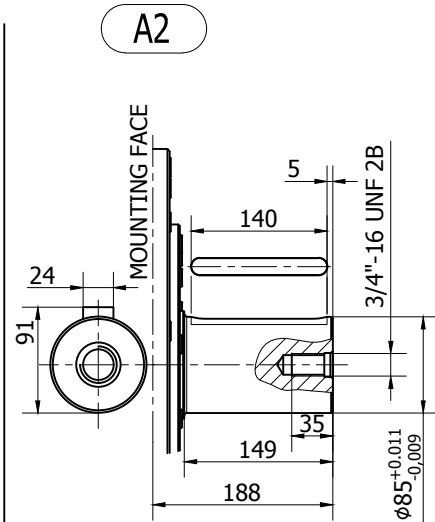
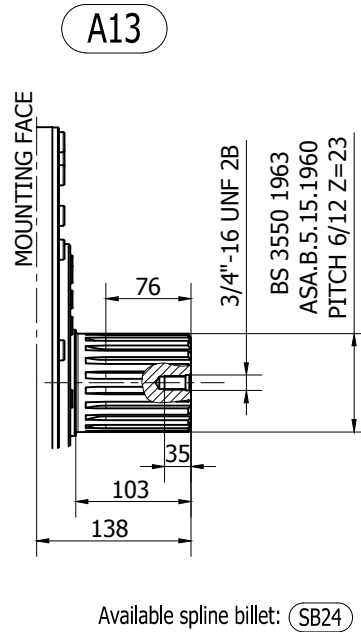
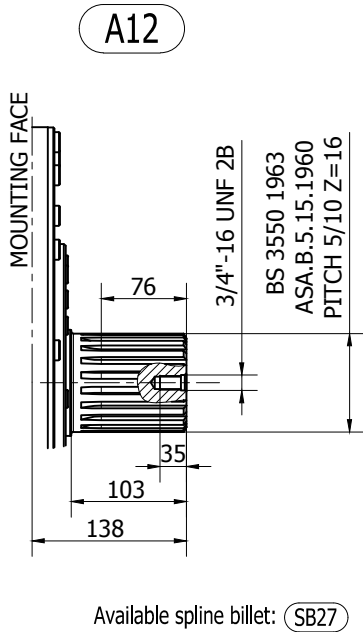
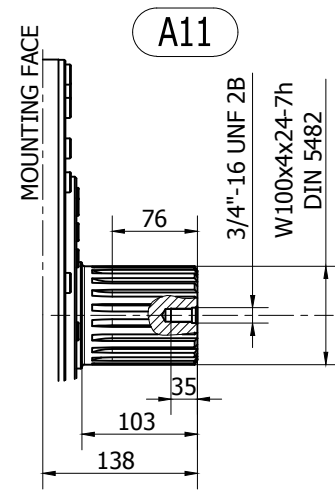
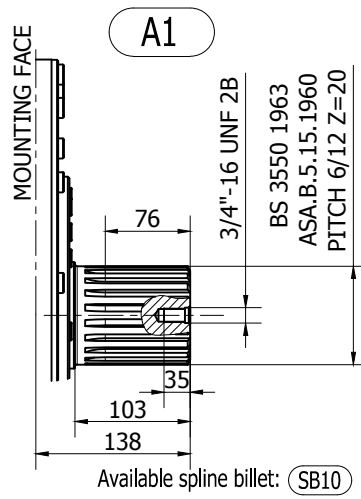
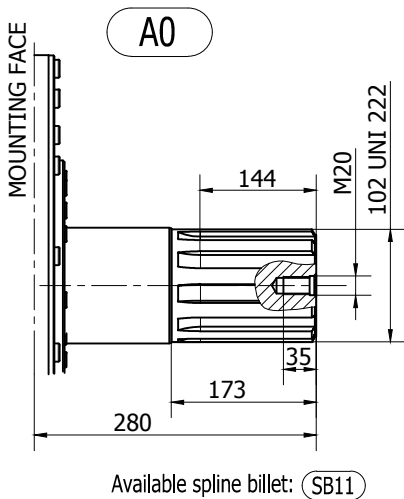
**TECHNICAL DATA**

		<b>3400</b>	<b>3600</b>	<b>3900</b>	<b>4300</b>	<b>4600</b>	<b>5000</b>	<b>5400</b>
DISPLACEMENT	[cc]	3413	3650	3907	4343	4616	5088	5384
SPECIFIC TORQUE	[Nm/bar]	54.3	58.1	62.2	69.1	73.5	81	85.7
MAX. CONT. PRESSURE	[bar]	270	270	270	270	270	270	270
HYDROSTATIC TEST PRESSURE	[bar]	420	420	420	420	420	420	420
MAX. CONT. SPEED	[rpm]	200	185	175	160	150	140	130
PEAK SPEED (***)	[rpm]	220	210	200	185	170	160	150
MAX. CONT. POWER (****)	[kW]	230	230	230	230	230	230	230
MAX. CONT. POWER WITH FLUSHING	[kW]	258	258	258	258	258	258	258
MAX. CASE PRESSURE	[bar]	6	6	6	6	6	6	6
DRY WEIGHT	[kg]	405	405	405	405	405	405	405
TEMPERATURE RANGE (**)	[°C]	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70

- (\*) The standard distributor (D90) is shown. Please refer to distributors section (pag. 148-149) for different distributor interfaces.
- (\*\*) Please refer to the hydraulic fluid recommendations (pag. 10-11).
- (\*\*\*) Do not exceed maximum continuous power with flushing (see pag. 13).
- (\*\*\*\*) For motor operation with a continuous duty cycle at maximum continuous power the flushing is usually required. For more information please contact our technical department.

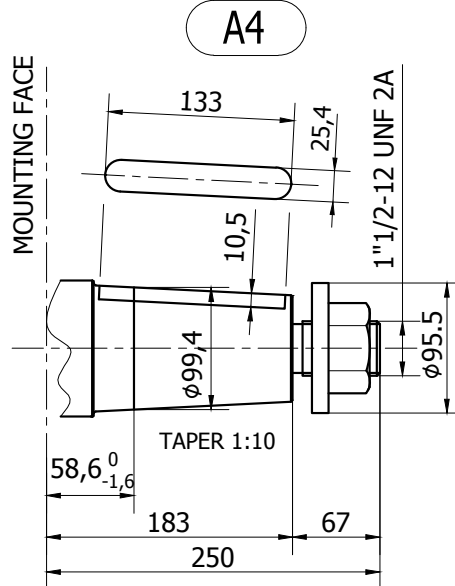
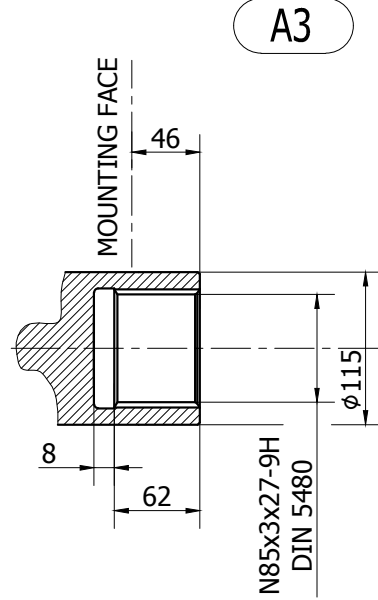
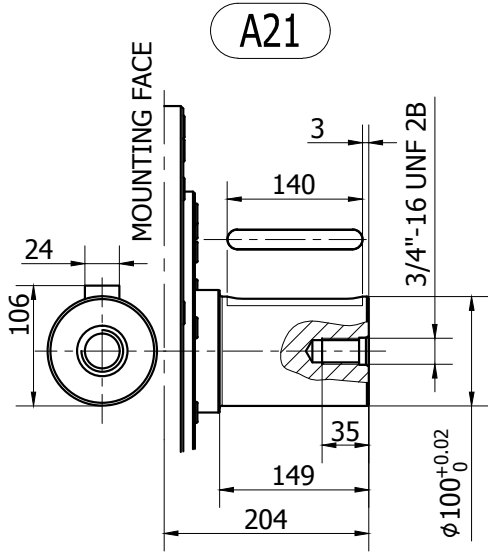
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SHAFT CONFIGURATIONS



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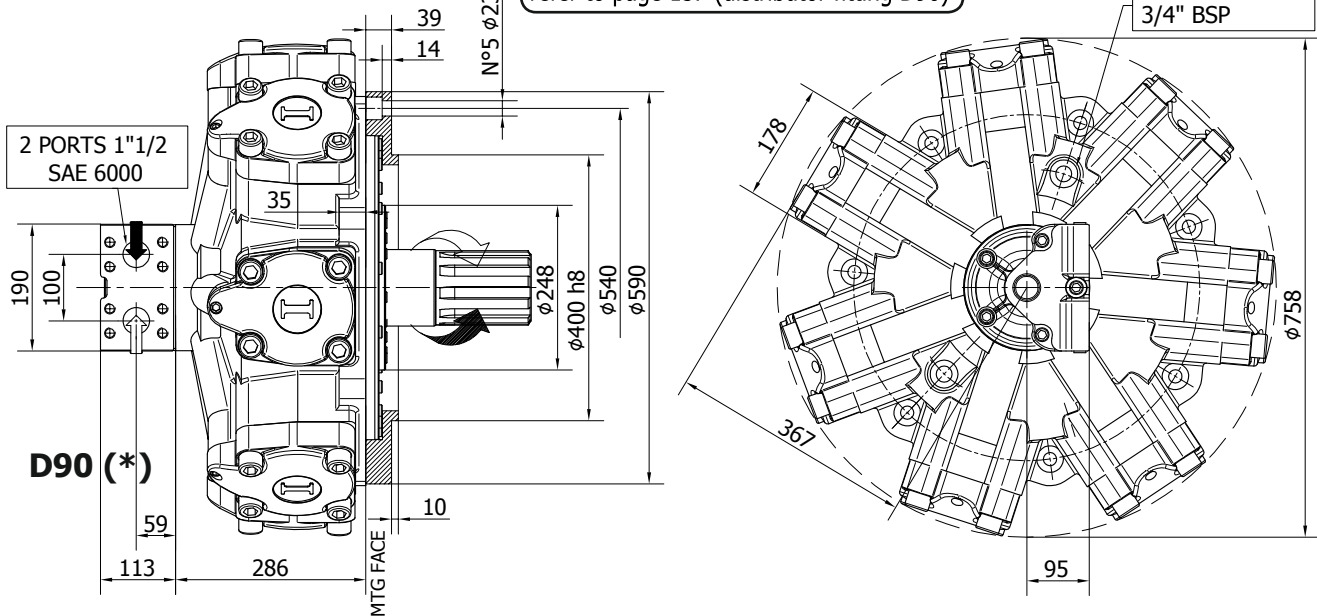
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**INSTALLATION DRAWING**

Available distributor flange: **FL8**  
refer to page 157 (distributor fitting D90)

2 DRAIN PORTS  
3/4" BSP



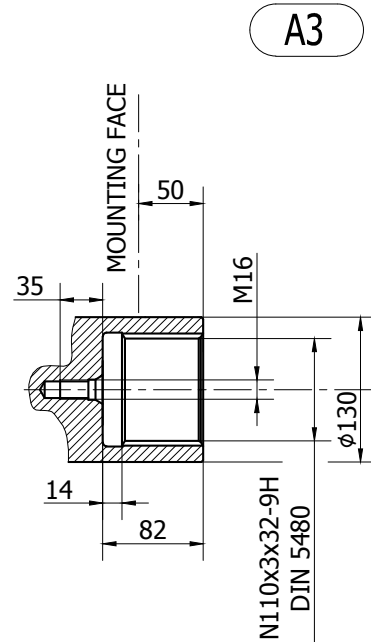
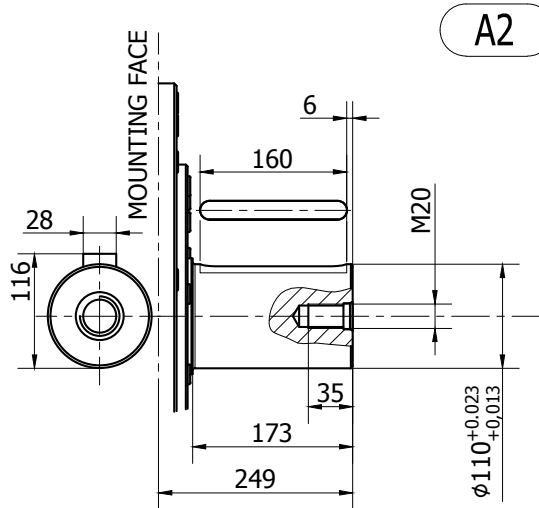
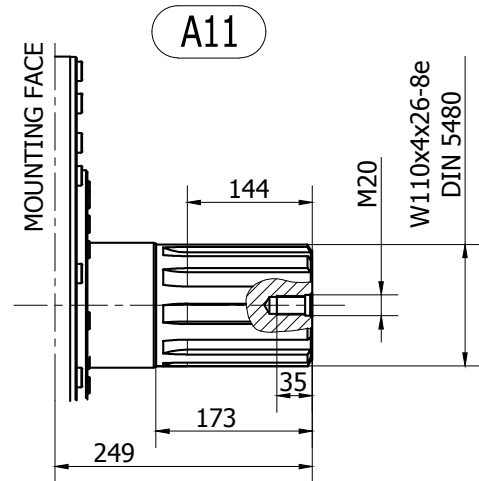
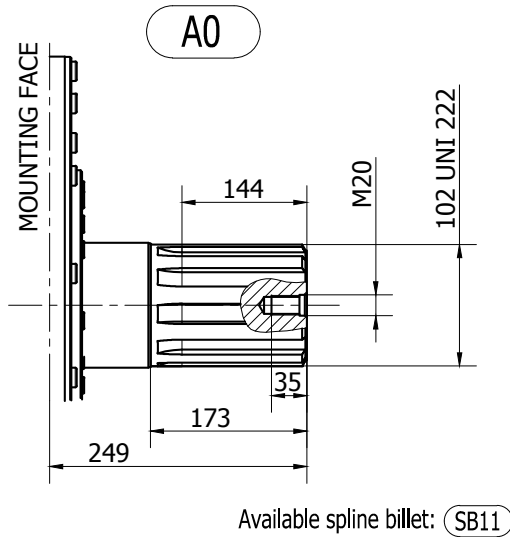
**TECHNICAL DATA**

		<b>3400</b>	<b>3600</b>	<b>3900</b>	<b>4300</b>	<b>4600</b>	<b>5000</b>	<b>5400</b>
DISPLACEMENT	[cc]	3413	3650	3907	4343	4616	5088	5384
SPECIFIC TORQUE	[Nm/bar]	54.3	58.1	62.2	69.1	73.5	81	85.7
MAX. CONT. PRESSURE	[bar]	270	270	270	270	270	270	270
HYDROSTATIC TEST PRESSURE	[bar]	420	420	420	420	420	420	420
MAX. CONT. SPEED	[rpm]	200	185	175	160	150	140	130
PEAK SPEED (***)	[rpm]	220	210	200	185	170	160	150
MAX. CONT. POWER (****)	[kW]	230	230	230	230	230	230	230
MAX. CONT. POWER WITH FLUSHING	[kW]	258	258	258	258	258	258	258
MAX. CASE PRESSURE	[bar]	6	6	6	6	6	6	6
DRY WEIGHT	[kg]	405	405	405	405	405	405	405
TEMPERATURE RANGE (**)	[°C]	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70

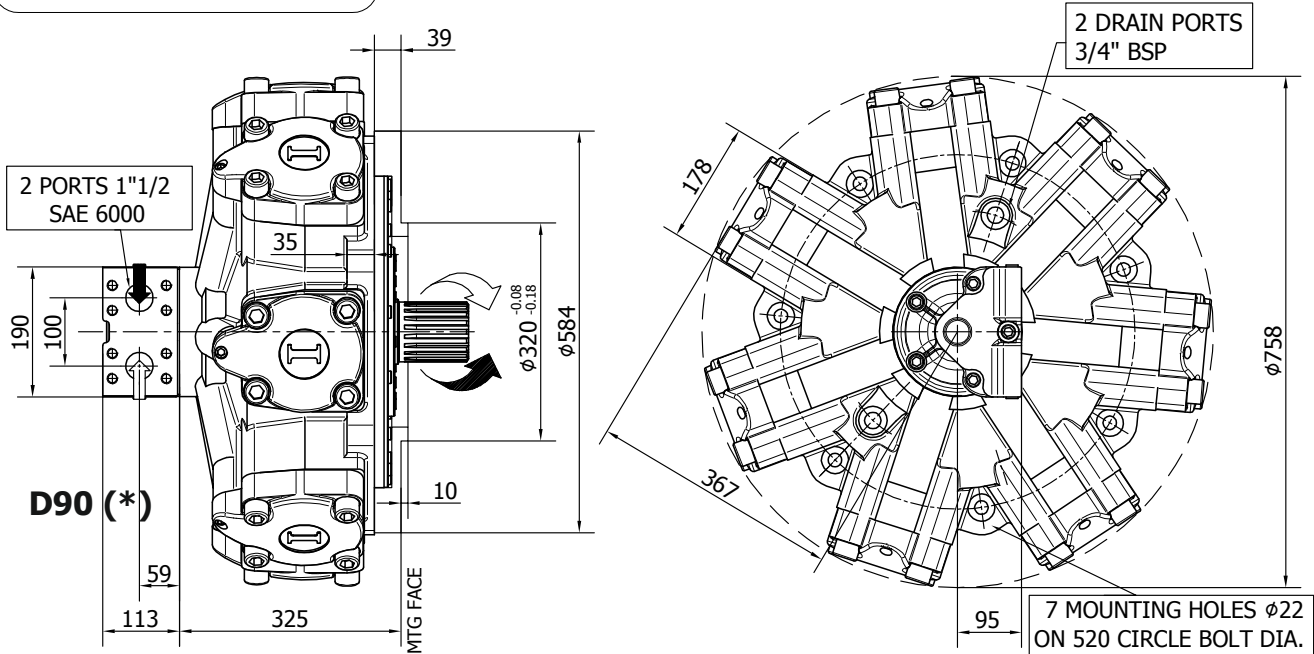
- (\*) The standard distributor (D90) is shown. Please refer to distributors section (pag. 148-149) for different distributor interfaces.
- (\*\*) Please refer to the hydraulic fluid recommendations (pag. 10-11).
- (\*\*\*) Do not exceed maximum continuous power with flushing (see pag. 13).
- (\*\*\*\*) For motor operation with a continuous duty cycle at maximum continuous power the flushing is usually required. For more information please contact our technical department.

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SHAFT CONFIGURATIONS



**INSTALLATION DRAWING**



**TECHNICAL DATA**

		<b>3400</b>	<b>3600</b>	<b>3900</b>	<b>4300</b>	<b>4600</b>	<b>5000</b>	<b>5400</b>
DISPLACEMENT	[cc]	3413	3650	3907	4343	4616	5088	5384
SPECIFIC TORQUE	[Nm/bar]	54.3	58.1	62.2	69.1	73.5	81	85.7
MAX. CONT. PRESSURE	[bar]	270	270	270	270	270	270	270
HYDROSTATIC TEST PRESSURE	[bar]	420	420	420	420	420	420	420
MAX. CONT. SPEED	[rpm]	200	185	175	160	150	140	130
PEAK SPEED (***)	[rpm]	220	210	200	185	170	160	150
MAX. CONT. POWER (****)	[kW]	230	230	230	230	230	230	230
MAX. CONT. POWER WITH FLUSHING	[kW]	258	258	258	258	258	258	258
MAX. CASE PRESSURE	[bar]	6	6	6	6	6	6	6
DRY WEIGHT	[kg]	405	405	405	405	405	405	405
TEMPERATURE RANGE (**)	[°C]	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70

- (\*) The standard distributor (D90) is shown. Please refer to distributors section (pag. 148-149) for different distributor interfaces.

- (\*\*) Please refer to the hydraulic fluid recommendations (pag. 10-11).

- (\*\*\*) Do not exceed maximum continuous power with flushing (see pag. 13).

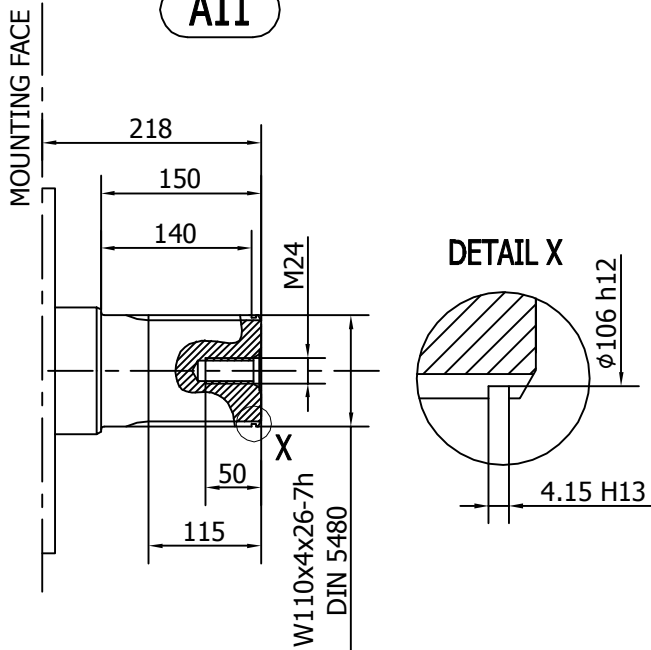
- (\*\*\*\*) For motor operation with a continuous duty cycle at maximum continuous power the flushing is usually required. For more information please contact our technical department.

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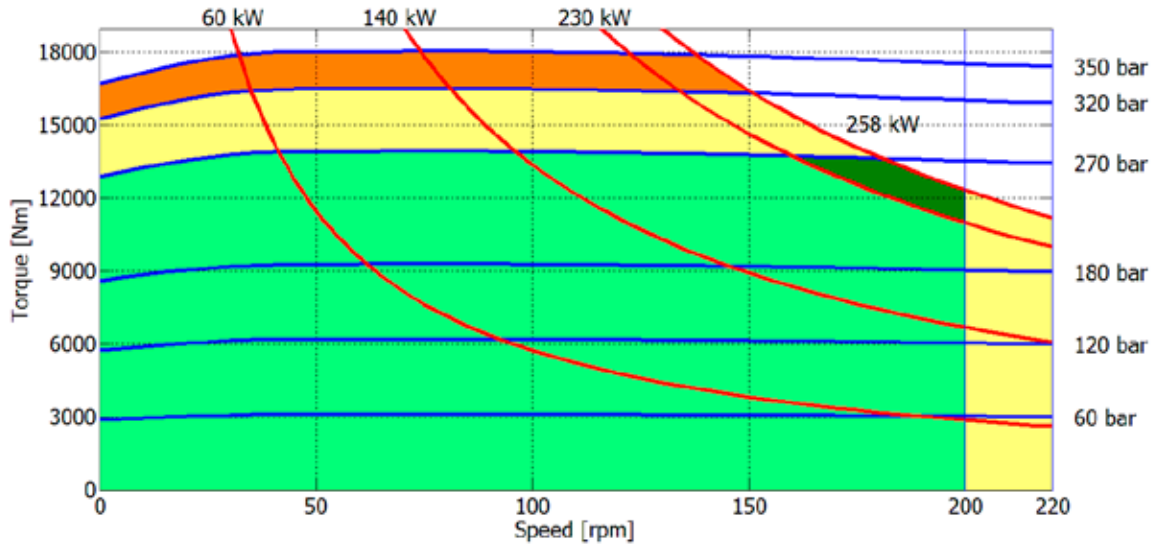
SHAFT CONFIGURATIONS

**A11**

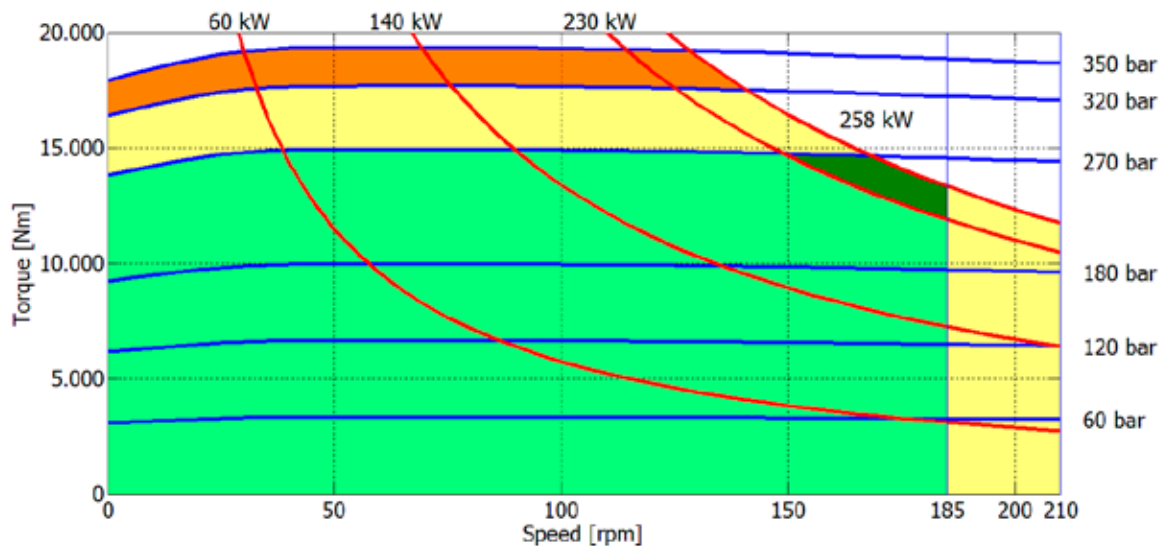


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**3400 cc**



**3600 cc**



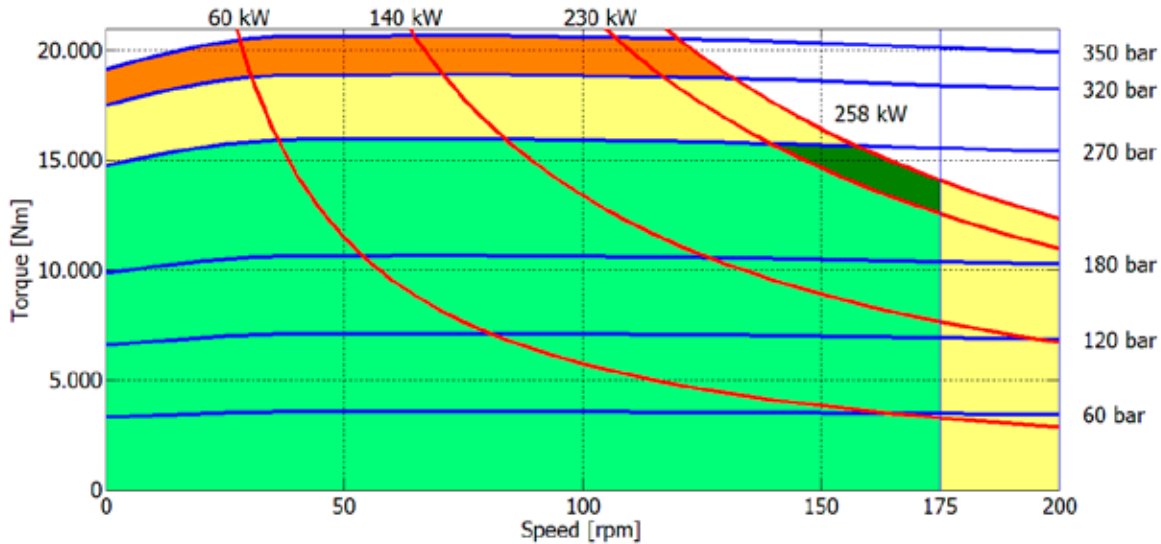
- Continuous operation
- Continuous operation with flushing or intermittent operation (see below for intermittent operation)
- Intermittent operation: permitted for a 15% of duty cycle, for 3 minutes maximum period
- Peak operation: permitted for very short periods (3-5 seconds every 10-15 minutes)

**The above diagrams are referring to the hydraulic motor working with a fluid in ideal conditions (viscosity at 40 cSt).** In case the working temperature increases and viscosity reach values under the recommended values (see hydraulic fluid recommendations) flushing must be performed or ISO oil grade must be changed. The working temperature must not overcome 70 °C.

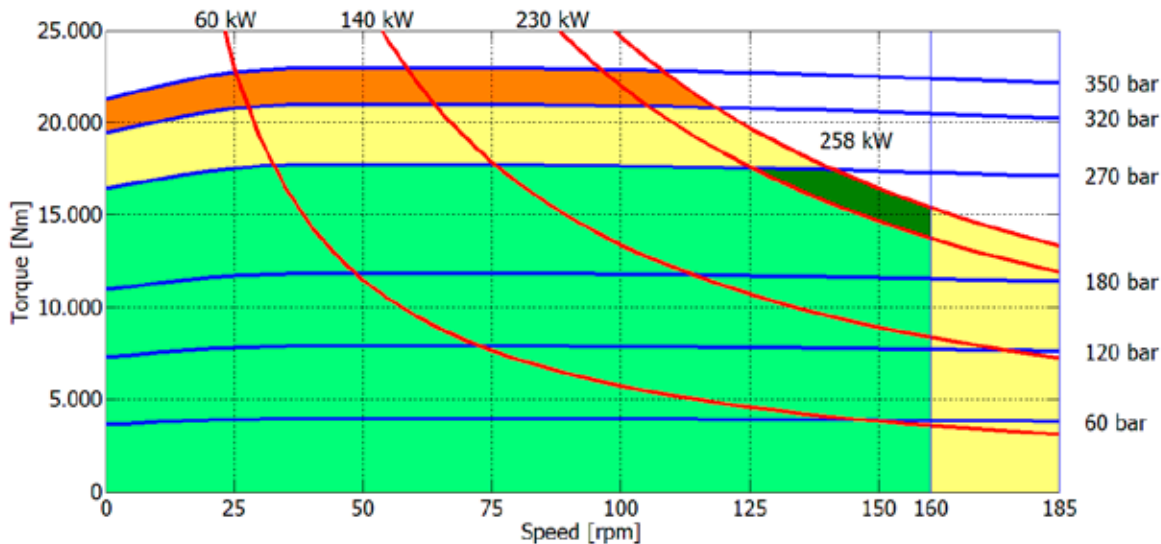
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# IAMD H7 - PERFORMANCE DIAGRAMS

## 3900 cc



## 4300 cc



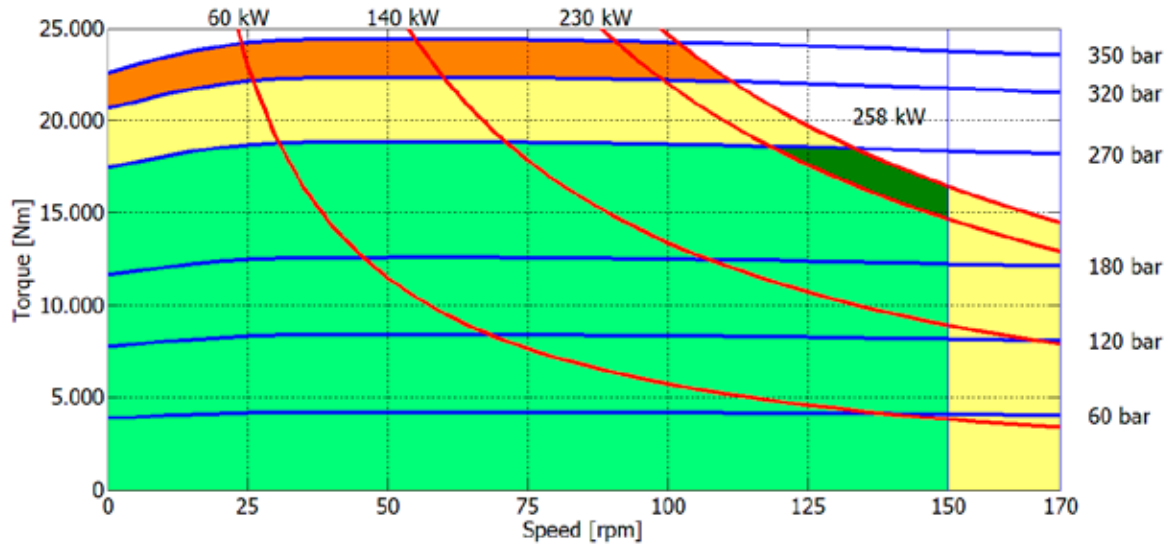
- Continuous operation
- Continuous operation with flushing or intermittent operation (see below for intermittent operation)
- Intermittent operation: permitted for a 15% of duty cycle, for 3 minutes maximum period
- Peak operation: permitted for very short periods (3-5 seconds every 10-15 minutes)

**The above diagrams are referring to the hydraulic motor working with a fluid in ideal conditions (viscosity at 40 cSt).** In case the working temperature increases and viscosity reach values under the recommended values (see hydraulic fluid recommendations) flushing must be performed or ISO oil grade must be changed. The working temperature must not overcome 70 °C.

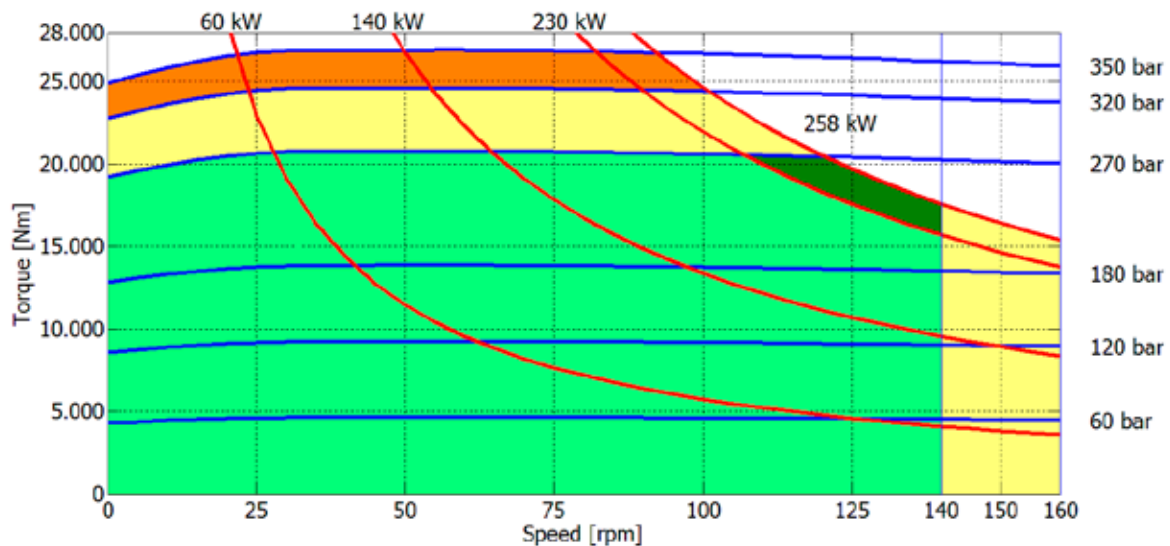
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**IAMD H7 - PERFORMANCE DIAGRAMS**

**4600 cc**



**5000 cc**



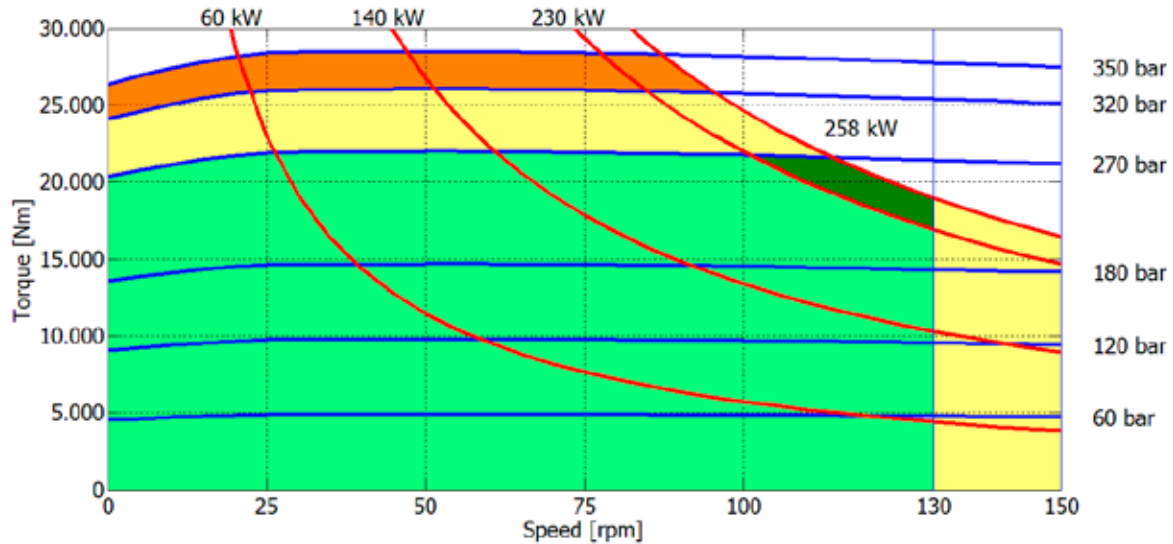
- Continuous operation
- Continuous operation with flushing or intermittent operation (see below for intermittent operation)
- Intermittent operation: permitted for a 15% of duty cycle, for 3 minutes maximum period
- Peak operation: permitted for very short periods (3-5 seconds every 10-15 minutes)

**The above diagrams are referring to the hydraulic motor working with a fluid in ideal conditions (viscosity at 40 cSt).** In case the working temperature increases and viscosity reach values under the recommended values (see hydraulic fluid recommendations) flushing must be performed or ISO oil grade must be changed. The working temperature must not overcome 70 °C.

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## IAMD H7 - PERFORMANCE DIAGRAMS

### 5400 cc

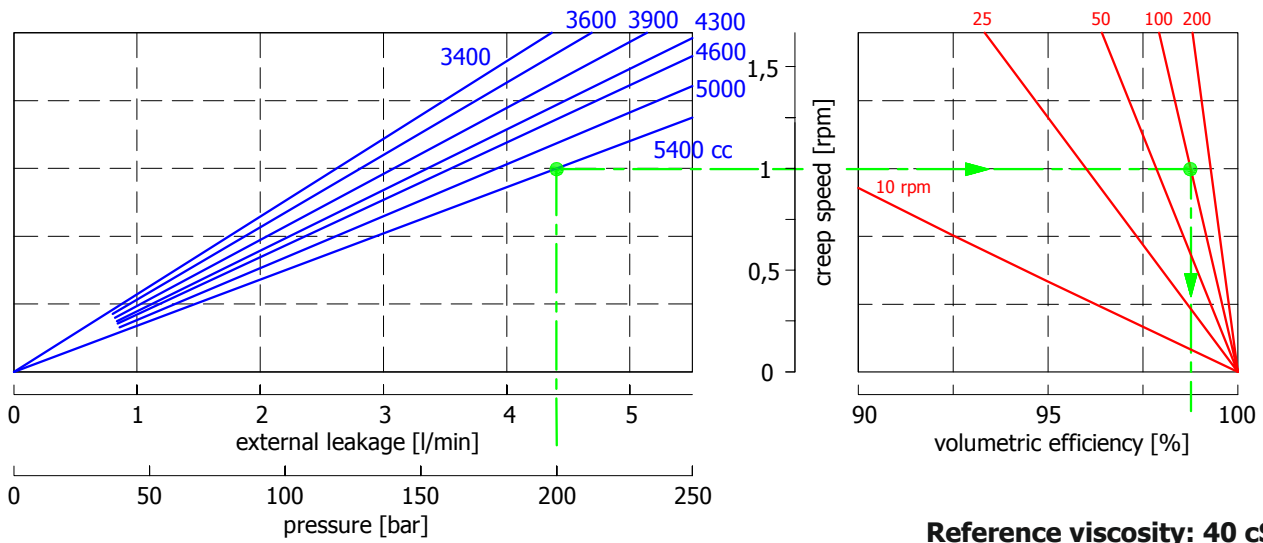


- Continuous operation
- Continuous operation with flushing or intermittent operation (see below for intermittent operation)
- Intermittent operation: permitted for a 15% of duty cycle, for 3 minutes maximum period
- Peak operation: permitted for very short periods (3-5 seconds every 10-15 minutes)

**The above diagrams are referring to the hydraulic motor working with a fluid in ideal conditions (viscosity at 40 cSt).** In case the working temperature increases and viscosity reach values under the recommended values (see hydraulic fluid recommendations) flushing must be performed or ISO oil grade must be changed. The working temperature must not overcome 70 °C.

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**CREEP SPEED - VOLUMETRIC EFFICIENCY**

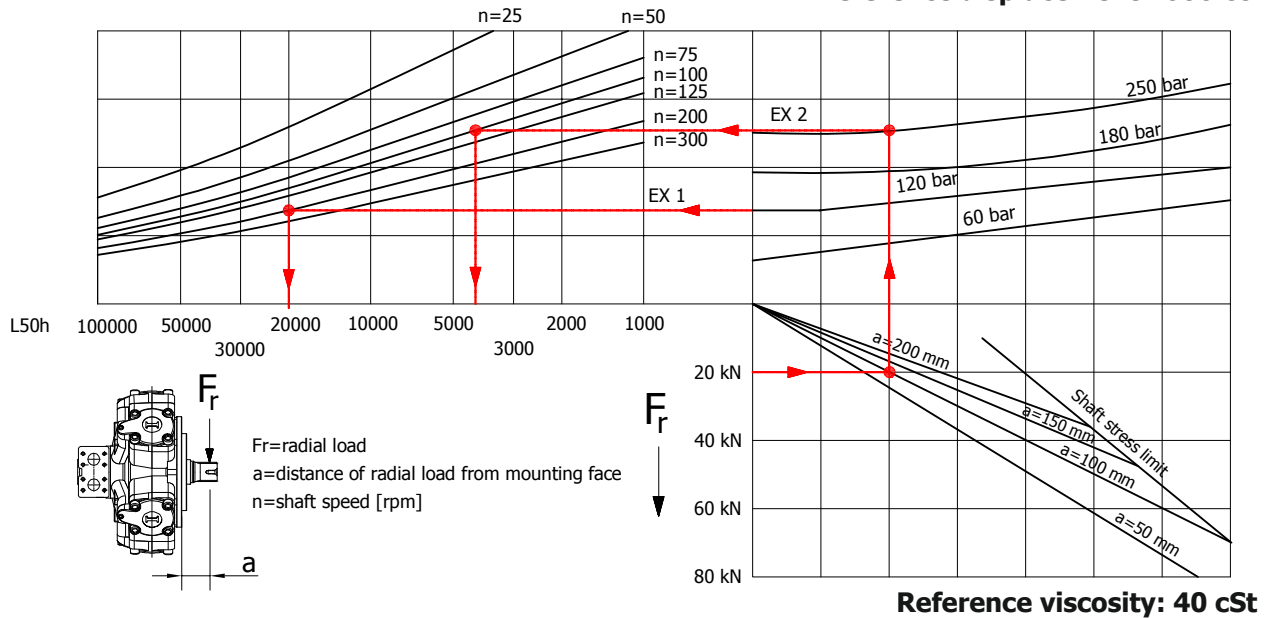


Example:

We suppose (5400 cc):  $p=200$  [bar], we obtain: external leakage 4,3 [l/min], shaft creep speed 1 [rpm].  
If we suppose (5400 cc):  $p=200$  [bar] and  $n=100$  [rpm] we obtain a volumetric efficiency of 98,5%;

**BEARING LIFE**

**Reference displacement 4600 cc**

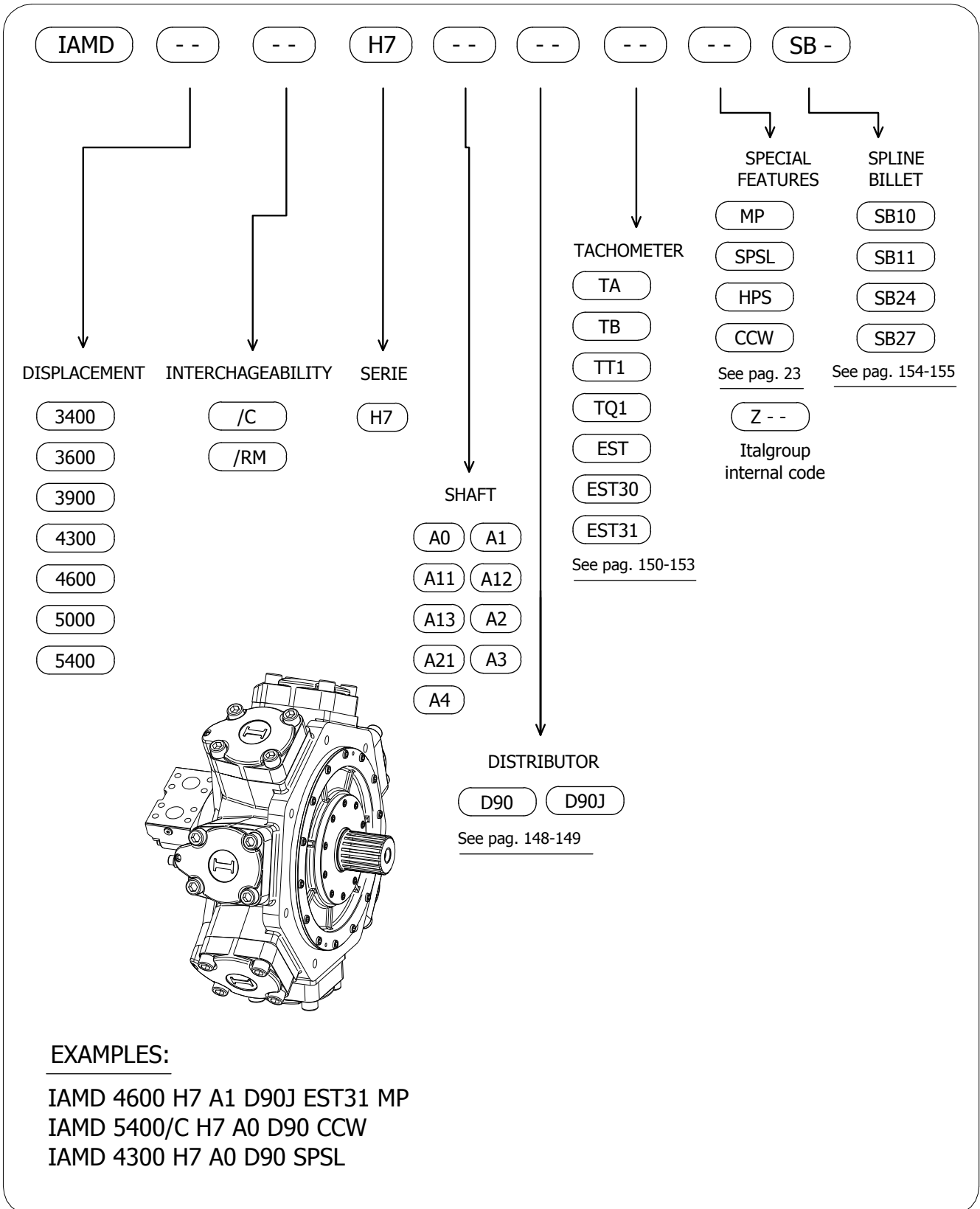


Example:

We suppose (EX1):  $p=120$  [bar],  $n=200$  [rpm]; we obtain an average lifetime of 20000 [h].  
If we suppose (EX2):  $F_r=20$  [kN],  $a=100$  [mm],  $n=100$  [rpm] and  $p=250$  [bar] we obtain an average lifetime of 4000 [h].

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# IAMD H7 - ORDERING CODE



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**ITALGROUP SRL**  
**IAMD SERIES - IAMD H8**  
**GENERAL CATALOGUE**

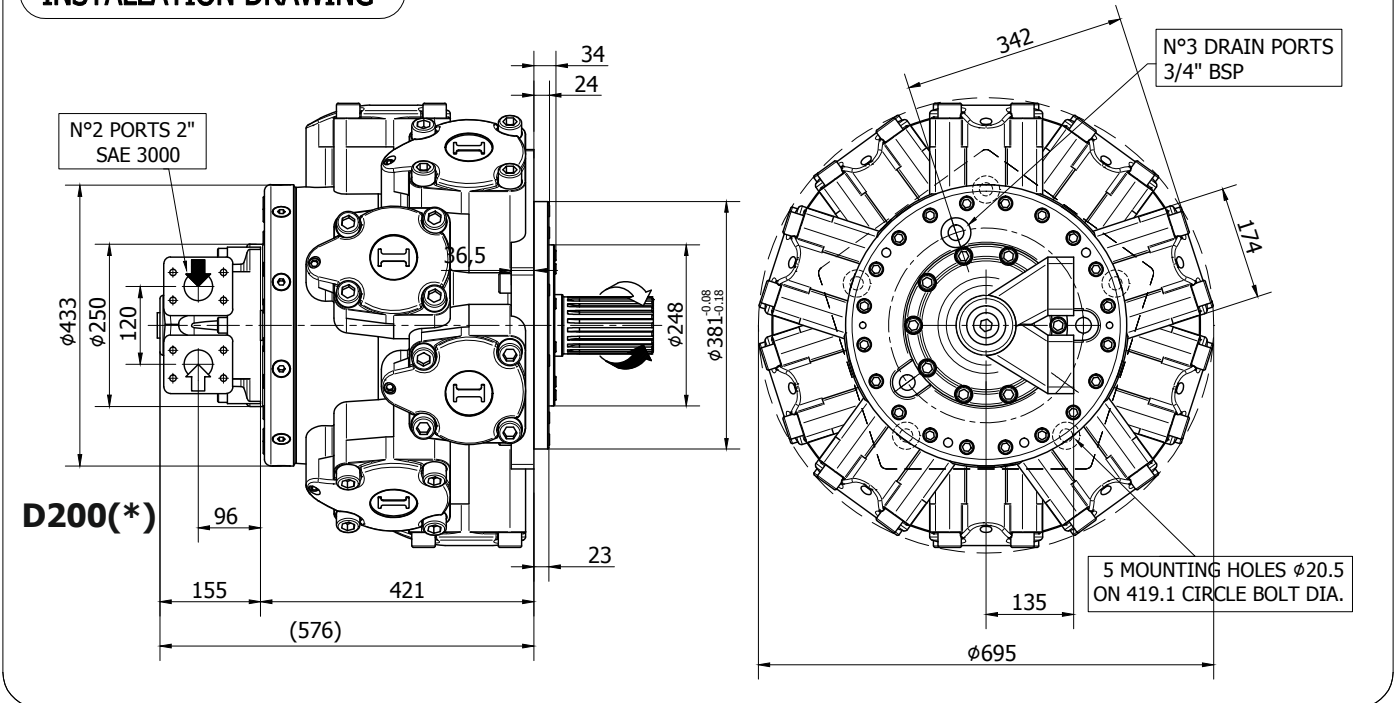
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<u>IAMD H8/C - INSTALLATION DRAWINGS</u>	„	140 - 141
<u>IAMD H8 - PERFORMANCE DIAGRAMS</u>	„	142 - 145
<u>IAMD H8 - ORDERING CODE</u>	„	146

**INSTALLATION DRAWING**



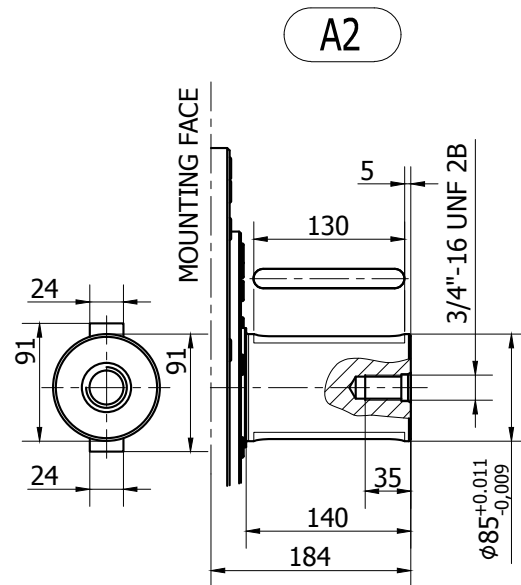
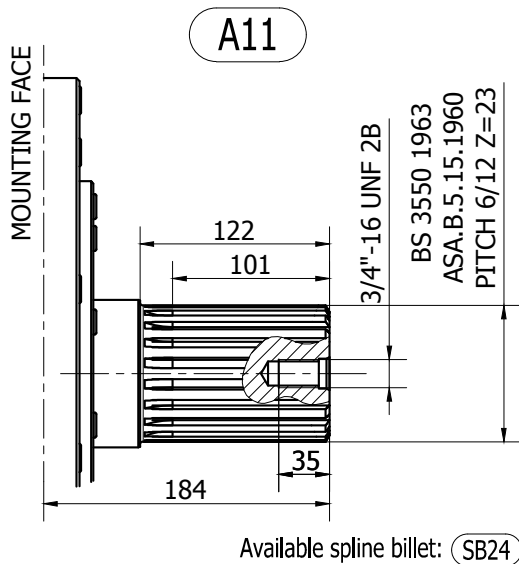
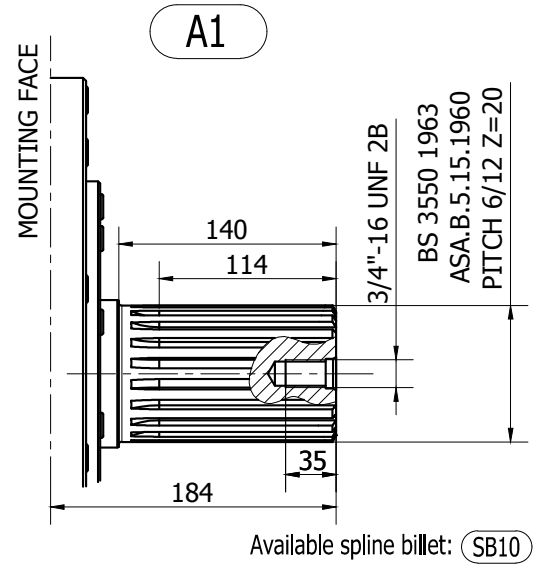
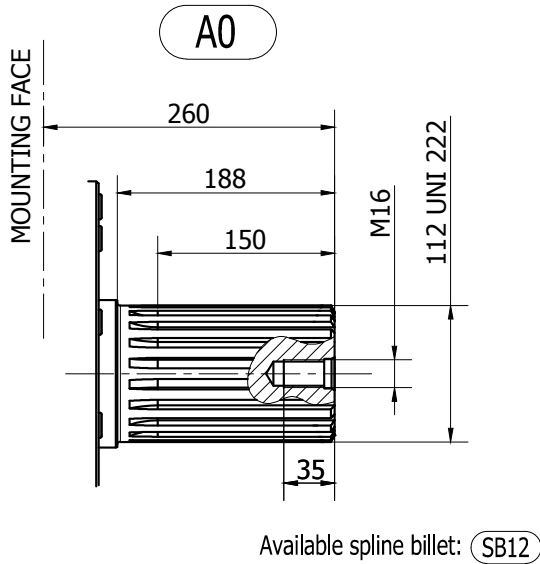
**TECHNICAL DATA**

		<b>6000</b>	<b>6500</b>	<b>6800</b>	<b>7600</b>	<b>8000</b>
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
HYDROSTATIC TEST PRES-SURE	[bar]	420	420	420	420	420
MAX. CONT. SPEED	[rpm]	120	120	120	90	80
PEAK SPEED (***)	[rpm]	140	140	140	100	90
MAX. CONT. POWER (****)	[kW]	200	200	200	200	178
MAX. CONT. POWER WITH FLUSHING	[kW]	225	225	225	225	225
MAX. CASE PRESSURE	[bar]	6	6	6	6	6
DRY WEIGHT	[kg]	590	590	590	590	590
TEMPERATURE RANGE (**)	[°C]	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70

- (\*) The standard distributor (D200) is shown. Please refer to distributors section (pag. 148-149) for D200 distributor interface.
- (\*\*) Please refer to the hydraulic fluid recommendations (pag. 10-11).
- (\*\*\*) Do not exceed maximum continuous power with flushing (see pag. 13).
- (\*\*\*\*) For motor operation with a continuous duty cycle at maximum continuous power the flushing is usually required. For more information please contact our technical department.

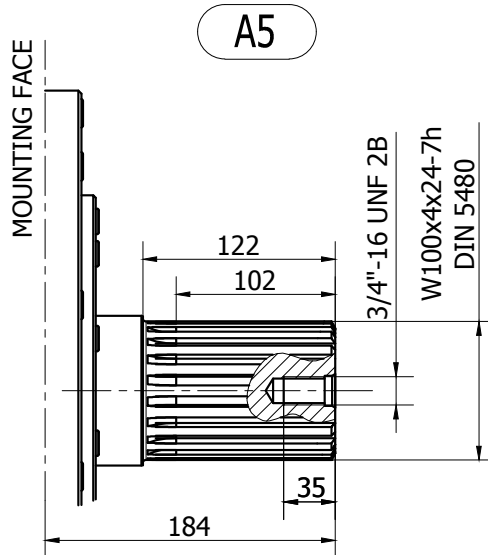
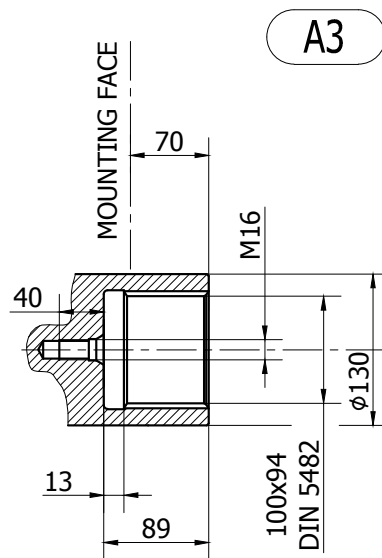
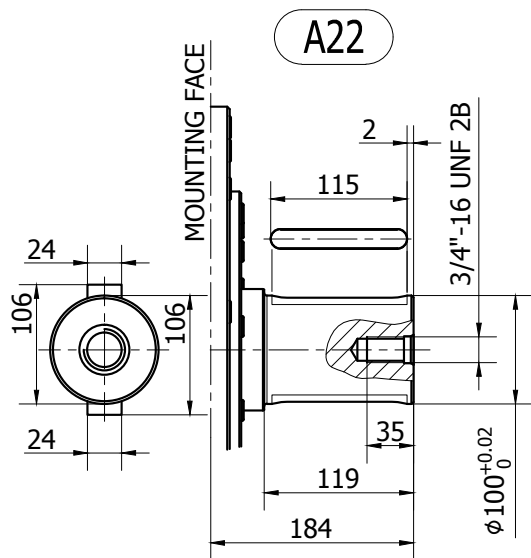
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SHAFT CONFIGURATIONS



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SHAFT CONFIGURATIONS



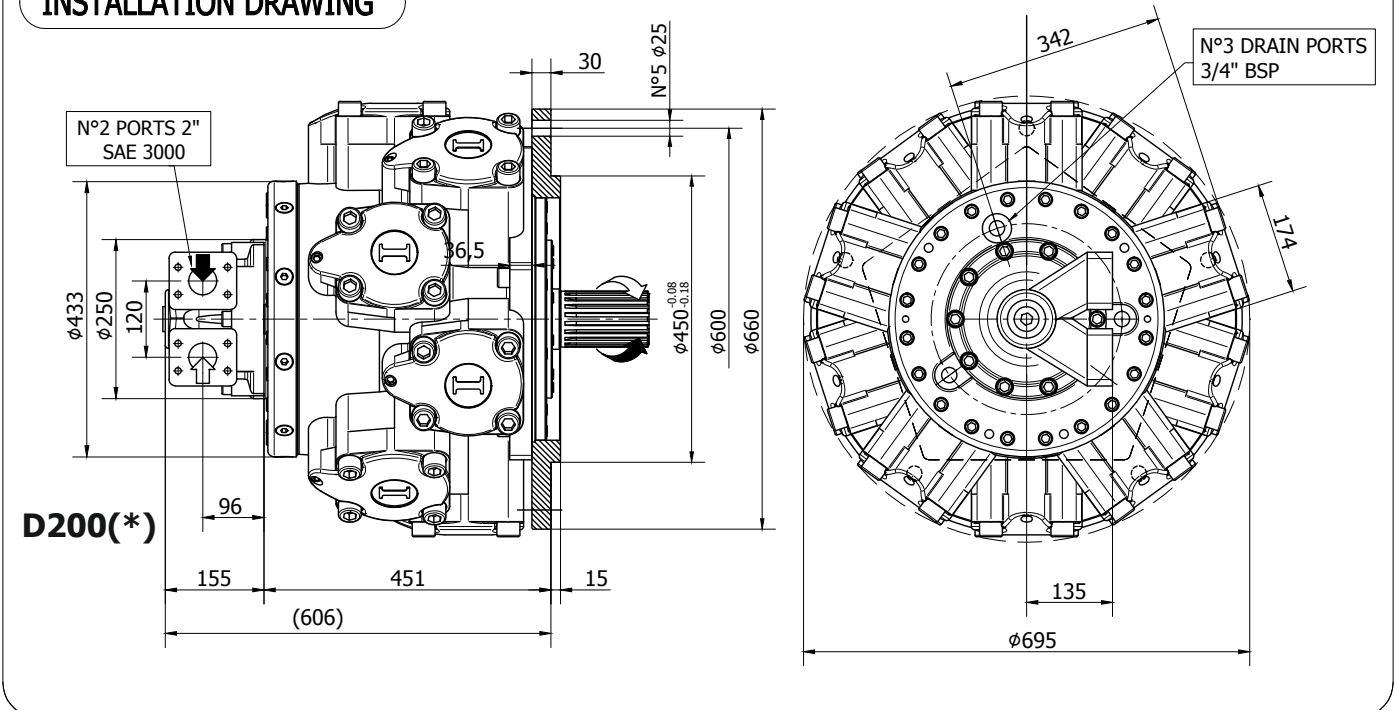
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**INSTALLATION DRAWING**



**TECHNICAL DATA**

		<b>6000</b>	<b>6500</b>	<b>6800</b>	<b>7600</b>	<b>8000</b>
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
HYDROSTATIC TEST PRESSURE	[bar]	420	420	420	420	420
MAX. CONT. SPEED	[rpm]	120	120	120	90	80
PEAK SPEED (***)	[rpm]	140	140	140	100	90
MAX. CONT. POWER (****)	[kW]	200	200	200	200	178
MAX. CONT. POWER WITH FLUSHING	[kW]	225	225	225	225	225
MAX. CASE PRESSURE	[bar]	6	6	6	6	6
DRY WEIGHT	[kg]	590	590	590	590	590
TEMPERATURE RANGE (**)	[°C]	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70

- (\*) The standard distributor (D200) is shown. Please refer to distributors section (pag. 148-149) for D200 distributor interface.

- (\*\*) Please refer to the hydraulic fluid recommendations (pag. 10-11).

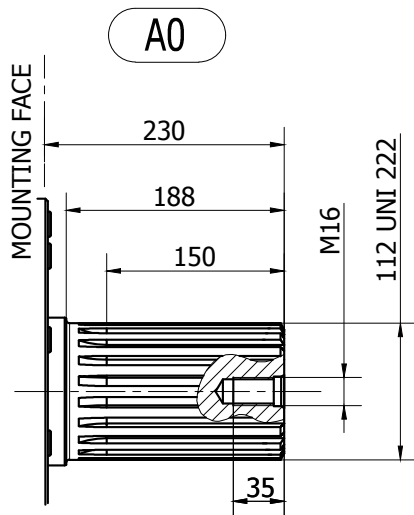
- (\*\*\*) Do not exceed maximum continuous power with flushing (see pag. 13).

- (\*\*\*\*) For motor operation with a continuous duty cycle at maximum continuous power the flushing is usually required.

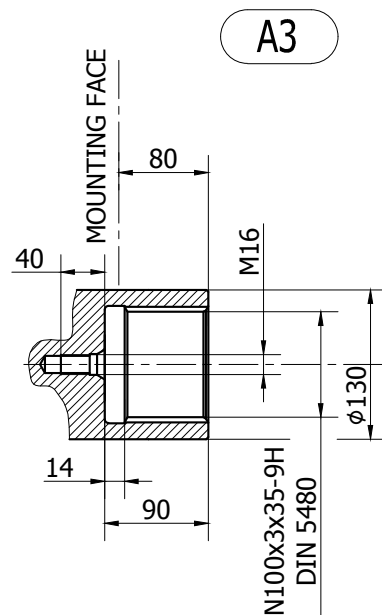
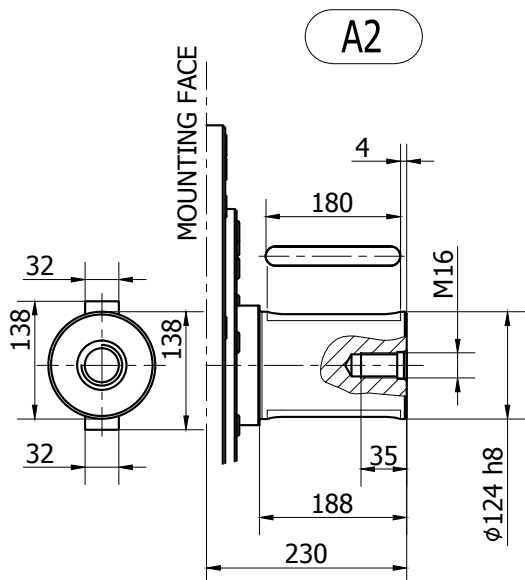
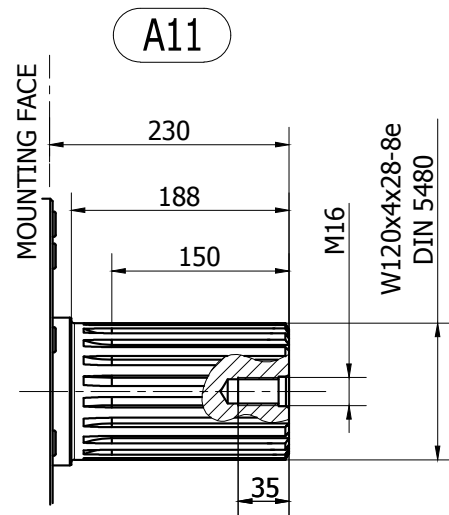
For more information please contact our technical department.

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SHAFT CONFIGURATIONS

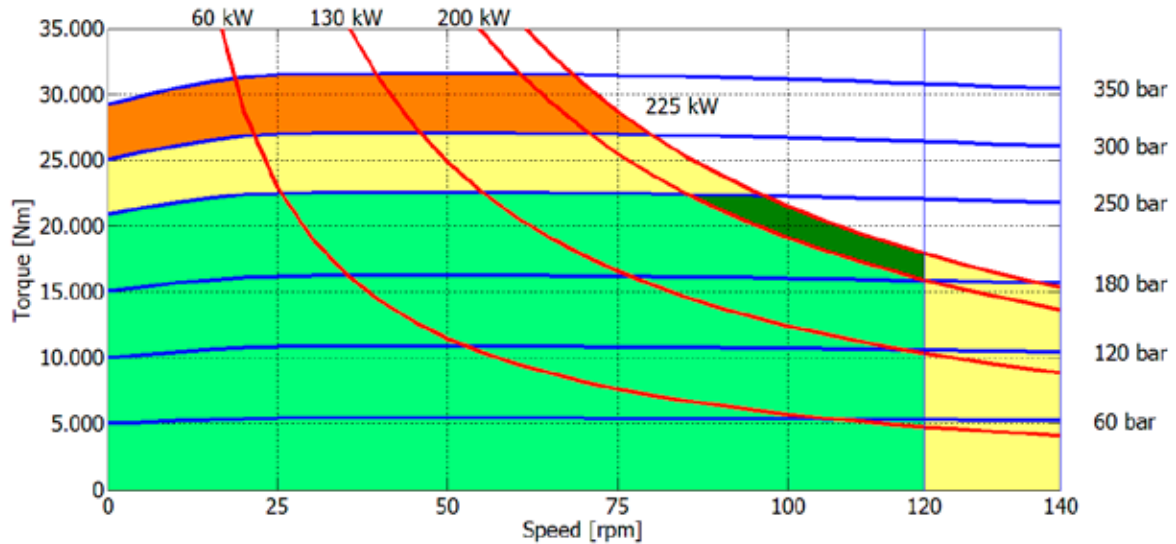


Available spline billet: (SB12)

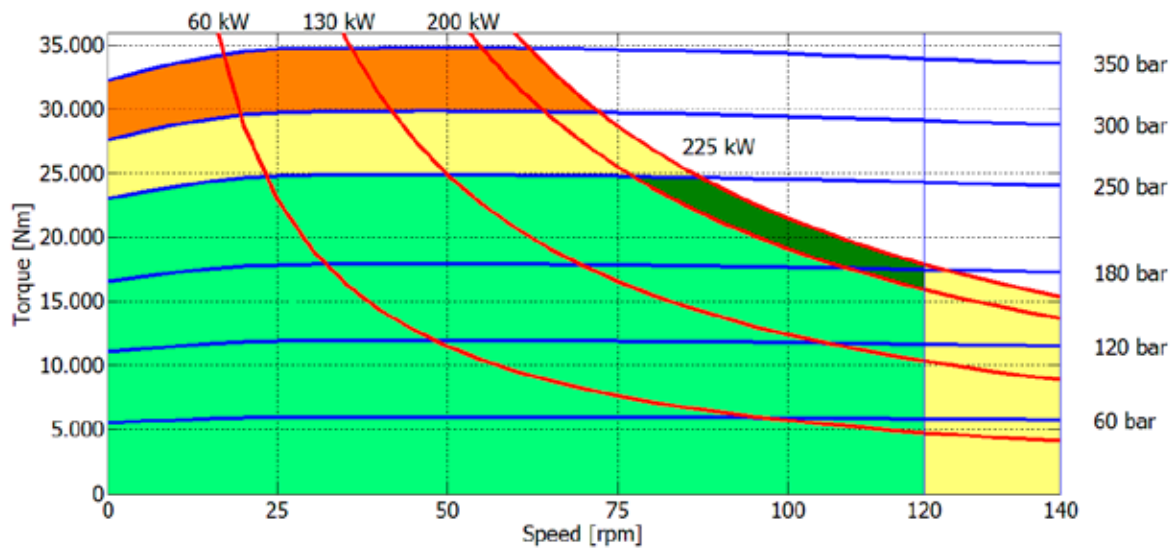


**IAMD H8 - PERFORMANCE DIAGRAMS**

**6000 cc**



**6500 cc**



- Continuous operation
- Continuous operation with flushing or intermittent operation (see below for intermittent operation)
- Intermittent operation: permitted for a 15% of duty cycle, for 3 minutes maximum period
- Peak operation: permitted for very short periods (3-5 seconds every 10-15 minutes)

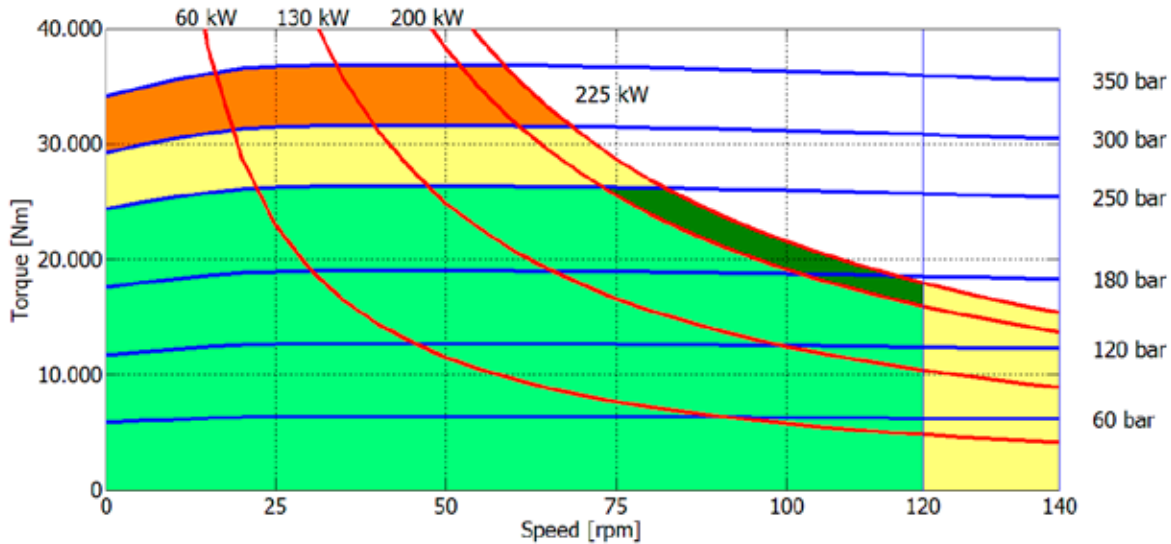
**The above diagrams are referring to the hydraulic motor working with a fluid in ideal conditions (viscosity at 40 cSt).** In case the working temperature increases and viscosity reach values under the recommended values (see hydraulic fluid recommendations) flushing must be performed or ISO oil grade must be changed. The working temperature must not overcome 70 °C.

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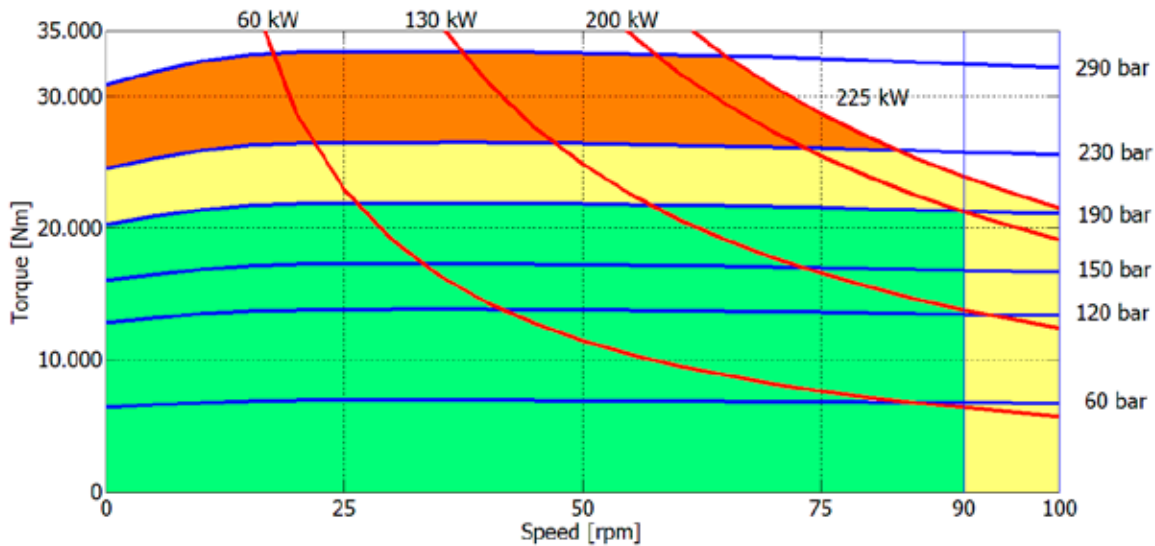


# IAMD H8 - PERFORMANCE DIAGRAMS

## 6800 cc



## 7600 cc

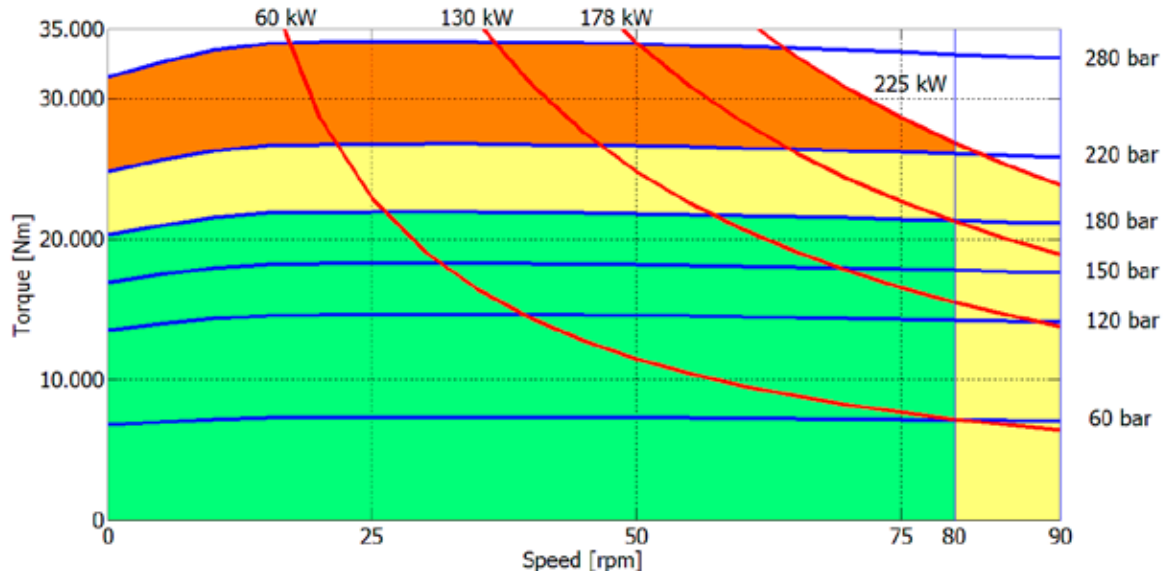


- Continuous operation
- Continuous operation with flushing or intermittent operation (see below for intermittent operation)
- Intermittent operation: permitted for a 15% of duty cycle, for 3 minutes maximum period
- Peak operation: permitted for very short periods (3-5 seconds every 10-15 minutes)

**The above diagrams are referring to the hydraulic motor working with a fluid in ideal conditions (viscosity at 40 cSt).** In case the working temperature increases and viscosity reach values under the recommended values (see hydraulic fluid recommendations) flushing must be performed or ISO oil grade must be changed. The working temperature must not overcome 70 °C.

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**8000 cc**

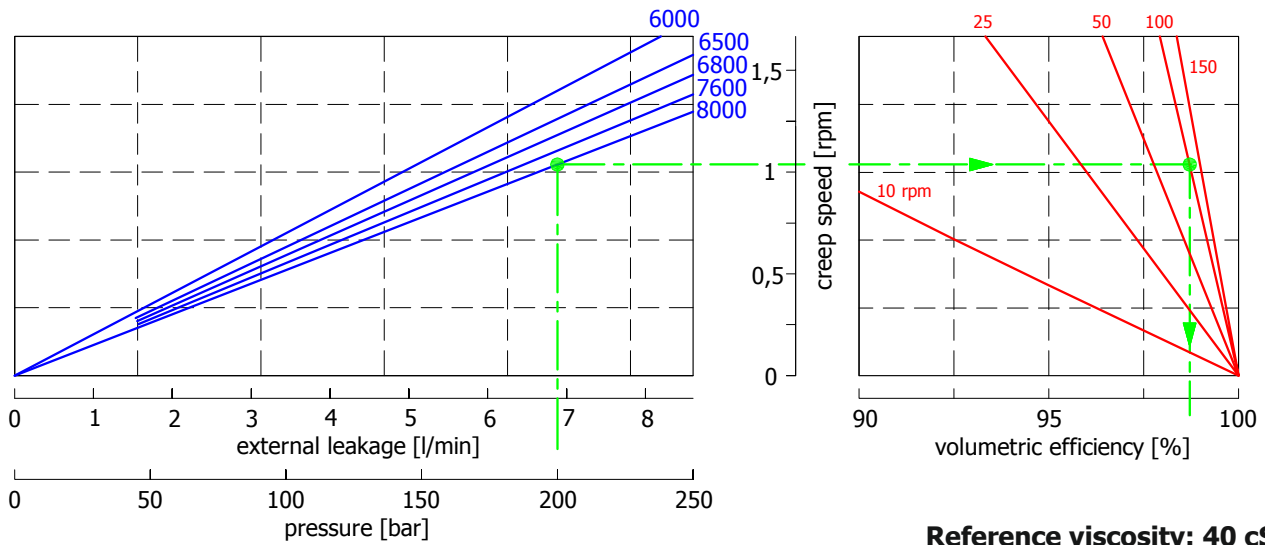


- Continuous operation
- Continuous operation with flushing or intermittent operation (see below for intermittent operation)
- Intermittent operation: permitted for a 15% of duty cycle, for 3 minutes maximum period
- Peak operation: permitted for very short periods (3-5 seconds every 10-15 minutes)

**The above diagrams are referring to the hydraulic motor working with a fluid in ideal conditions (viscosity at 40 cSt).** In case the working temperature increases and viscosity reach values under the recommended values (see hydraulic fluid recommendations) flushing must be performed or ISO oil grade must be changed. The working temperature must not overcome 70 °C.

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## CREEP SPEED - VOLUMETRIC EFFICIENCY

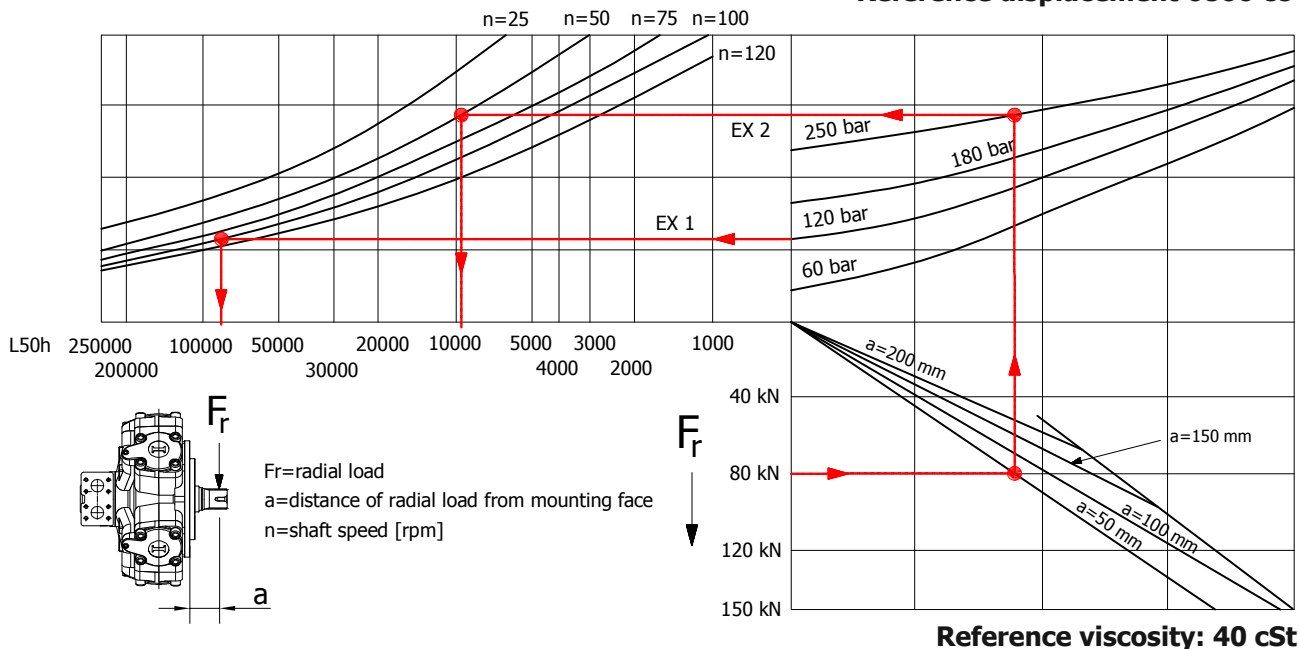


Example:

We suppose (8000 cc):  $p=200$  [bar], we obtain: external leakage 6,9 [l/min], shaft creep speed 1,05 [rpm].  
If we suppose (8000 cc):  $p=200$  [bar] and  $n=100$  [rpm] we obtain a volumetric efficiency of 98,5%;

## BEARING LIFE

Reference displacement 6800 cc

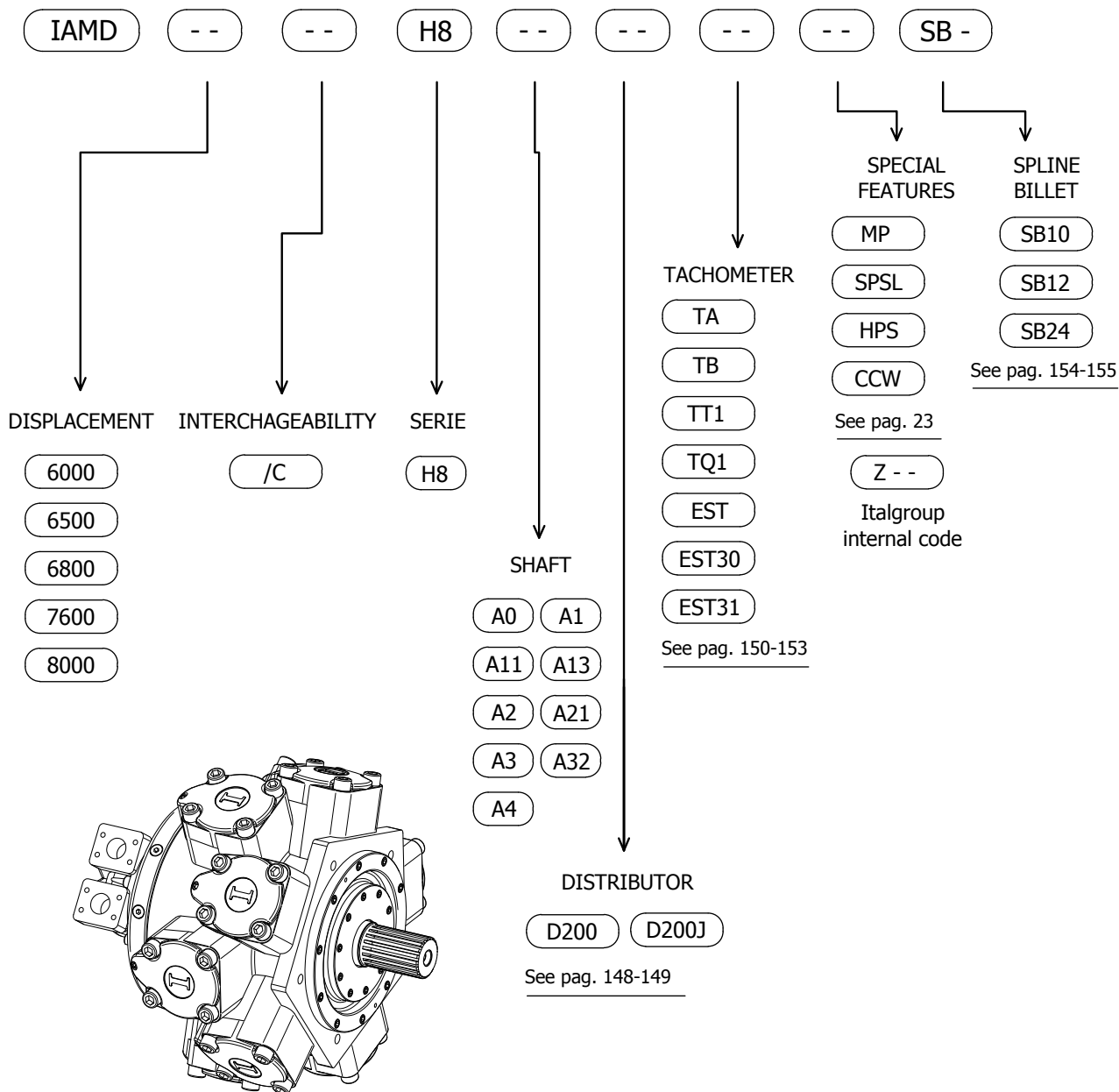


Example:

We suppose (EX1):  $p=120$  [bar],  $n=100$  [rpm]; we obtain an average lifetime of 85000 [h].  
If we suppose (EX2):  $F_r=80$  [kN],  $a=50$  [mm],  $n=50$  [rpm] and  $p=250$  [bar] we obtain an average lifetime of 9000 [h].

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## IAMD H8 - ORDERING CODE



### EXAMPLES:

IAMD 6000 H8 A1 D200J

IAMD 6800/C H8 A0 D200J EST30

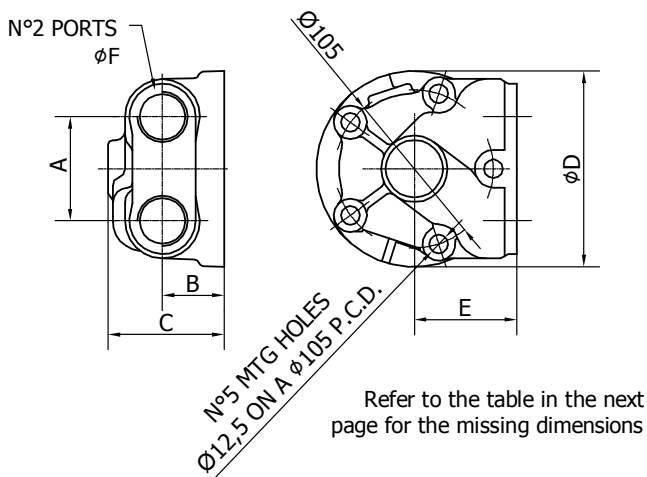
IAMD 8000 H8 A11 D200 HPS SB24

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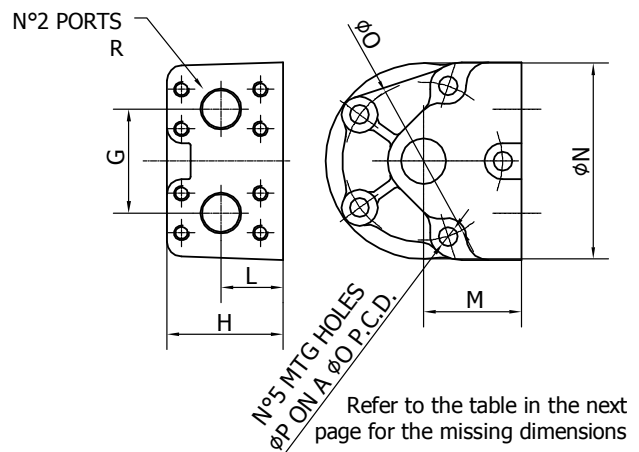
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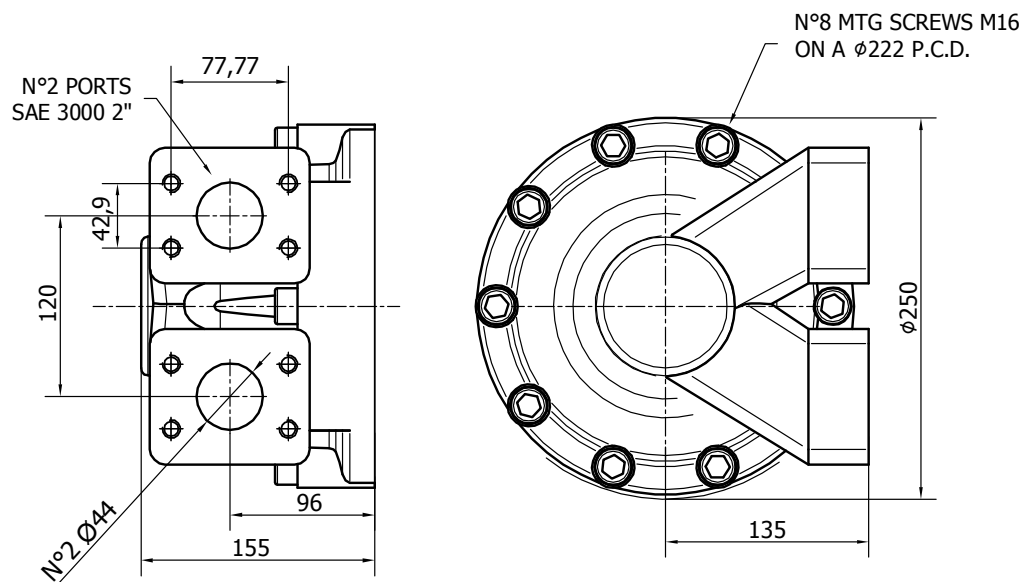
**D40-D416-D31B-D310B-D36B-D316B**



**D47-D75-D90**



**D200**



## MOTOR DISTRIBUTORS

		D40	D416	D31B	D310B	D36B	D316B	D47	D75	D90
A	[mm]	69	69	56	56	56	56			
B	[mm]	41	41	32	32	32	32			
C	[mm]	77	77	60	60	60	60			
D	[mm]	130	130	125	125	125	125			
E	[mm]	68	68	65	65	65	65			
F	□	1" BSP	1" SAE	3/4" BSP	1" BSP	3/4" SAE	1" SAE			
G	[mm]							69	83	100
H	[mm]							77	107	113
L	[mm]							41	55	59
M	[mm]							65	92	95
N	[mm]							130	170	190
O	[mm]							105	145	149
P	[mm]							12,5	14,5	14,5
R	□							1" SAE 3000	1"1/2 SAE 3000	1"1/2 SAE 6000

		D31	D310	D36	D316	D31B	D310B	D36B	D316B	D40	D416	D47	D75	D90	D200
		(*)	(*)	(*)	(*)										
MAX. CONT. FLOW	[l/min]	200	200	200	300	200	300	200	300	300	300	300	600	700	1000
MAX. FLOW	[l/min]	400	400	400	400	400	400	400	400	400	400	400	1000	1200	2000
MAX. CONT. PRESSURE	[bar]	300	300	300	300	300	300	300	300	300	300	300	300	300	300
PEAK PRESSURE	[bar]	500	500	500	500	500	500	500	500	500	500	500	500	500	500

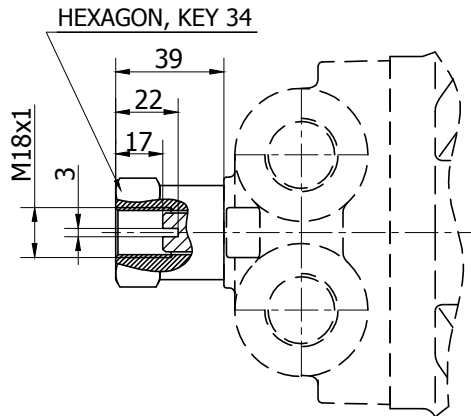
IAMD H2	●	●	●	●	●	●	●	●	●	●	●	●			
IAMD H3	●	●	●	●	●	●	●	●	●	●	●	●			
IAMD H4	●	●	●	●	●	●	●	●	●	●	●	●		●	
IAMD H45	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
IAMD H5					●	●	●	●	●	●	●	●	●	●	●
IAMD H55					●	●	●	●	●	●	●	●	●	●	●
IAMD H6					●	●	●	●	●	●	●	●	●	●	●
IAMD H7														●	
IAMD H8															●

- (\*) Reduced performance version. Please contact ItalgrouP for more details.
- Standard version
- Special version: available on request. Please contact ItalgrouP for more details

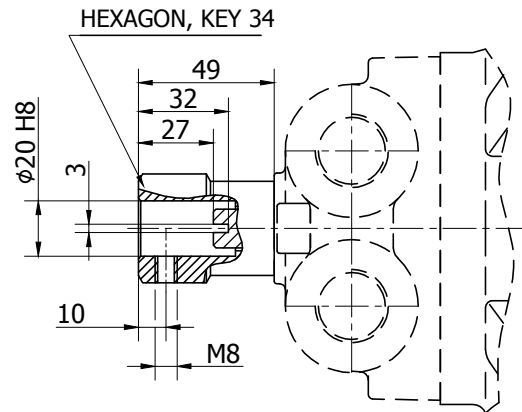
- (\*) When is possible, always select corresponding B version (D31B, D310B, D36B or D316B) Please contact ItalgrouP for more information.

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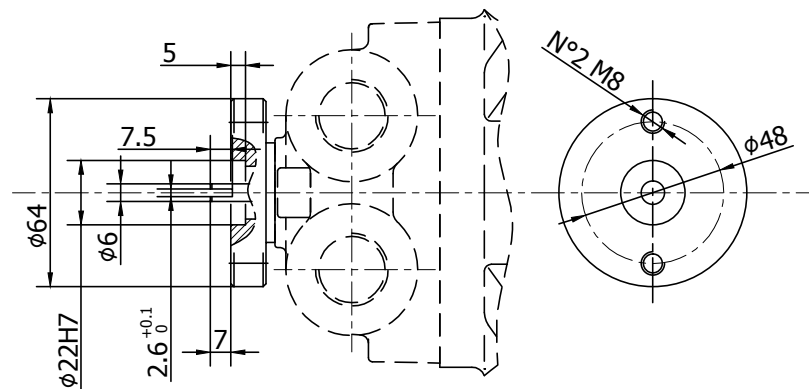
TA



TB

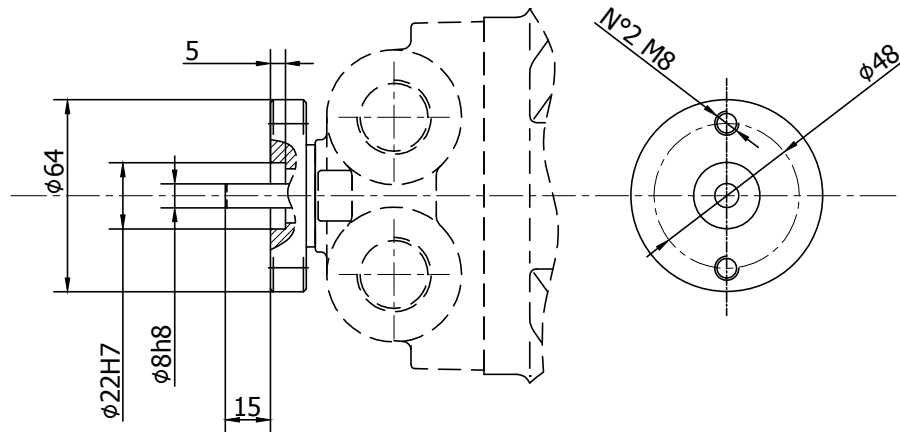


TT1

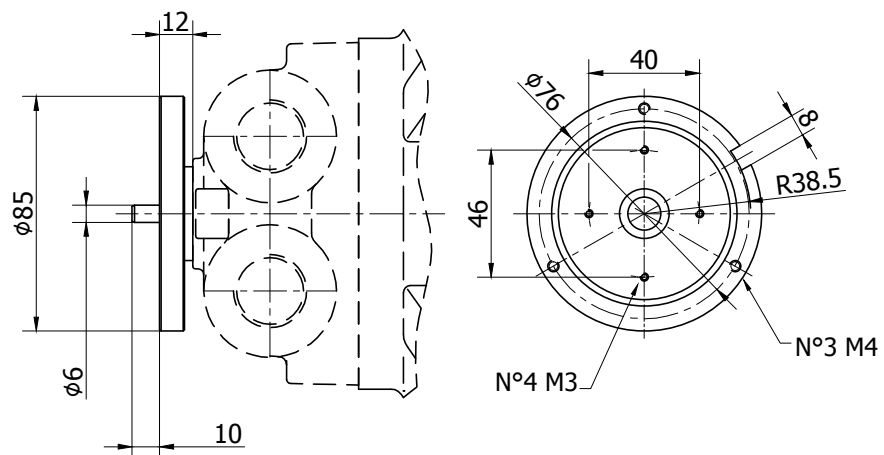




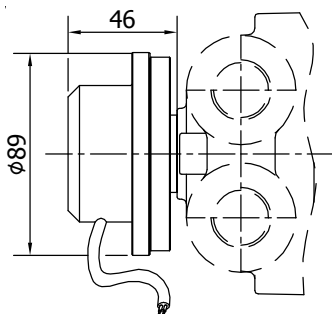
TQ1



EST



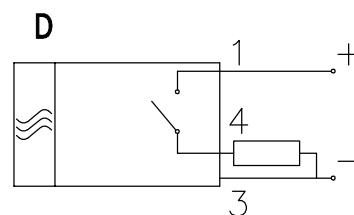
**EST30**



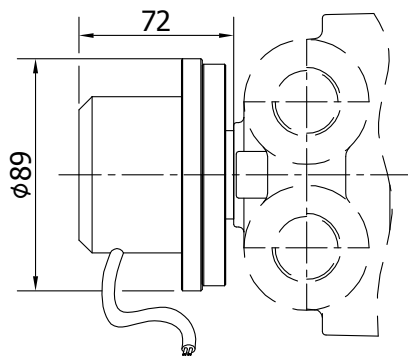
Operating parameters	E-..../3
Power supply (VDC)	10-30
Switching current (mA)	150
Frequency (Hz) 100rpm	50
Impulse/rpm	30
Operating temp. (°C)	-24/+70
Protection degree	IP67
Output	NPN
Motor type	All types

MODEL	φ5
Torque	1 Nm

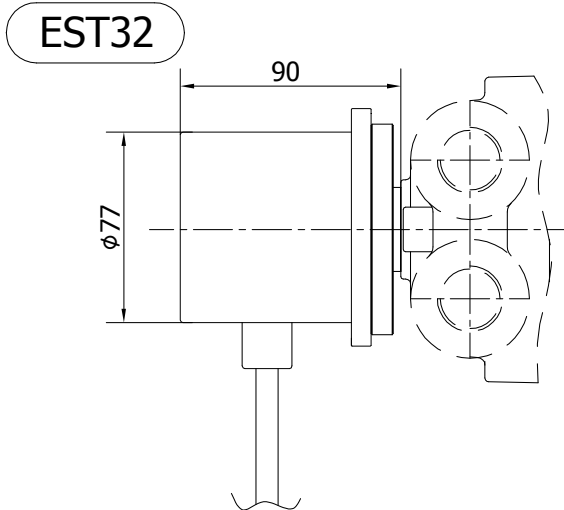
Model	Output	Fig.
E-..../.AP/....	PNP	D



**EST31**



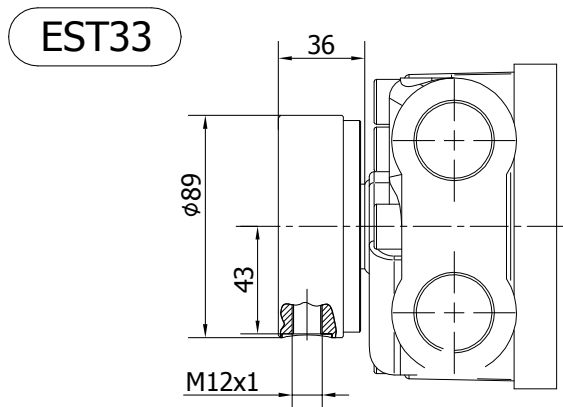
Power supply (VDC)	8-24
Impulse/rpm	500
Operating temp. (°C)	0/+60
Protection degree	IP65
Output	Push-pull
Motor type	All types
MODEL	φ5
Torque	1 Nm



Power supply (VDC)	8-24
Position control	4096 positions/rpm
Memory space	4096 rpm
Operating temp. (°C)	-20/+100
Protection degree	IP67
Output	SSI interface
Motor type	All types

MODEL	φ6
Torque	1 Nm

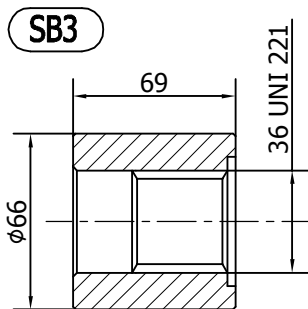
Encoder type: EAM 36 F 12/12 G8/30 S P Z E 6x6 PR2



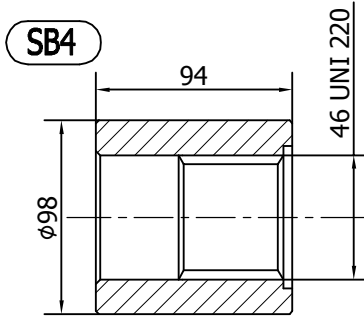
Impulse/rpm	12
Motor type	All types

Sensor NOT included

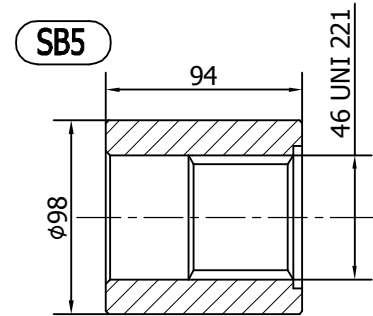
**SPLINED BILLETS**



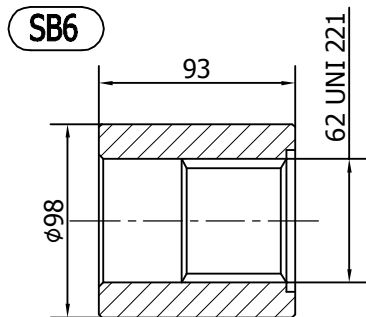
For: IAMD H2 A0  
IAMD H2/GM2 A0  
IAMD H3 A0



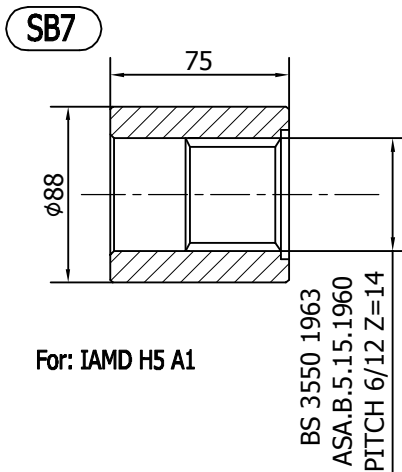
For: IAMD H4 A0



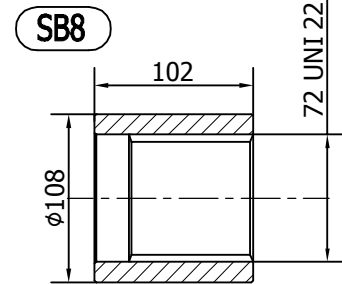
For: IAMD H3/C A1  
IAMD H4 A1



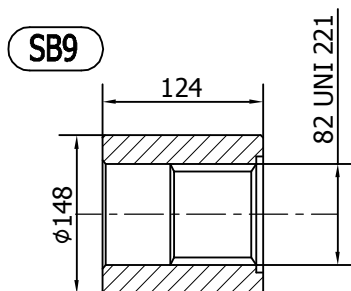
For: IAMD H45/C A0  
IAMD H5 A0  
IAMD 1000-1200-1400-1500/C H5 A0  
IAMD H5/SX508 A0



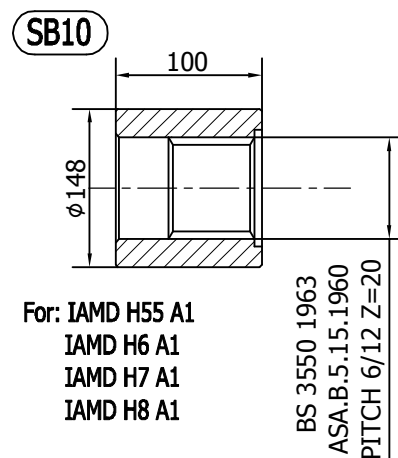
For: IAMD H5 A1



For: IAMD 1600-1800-2000/C H5 A0  
IAMD H55/MR1800 A0

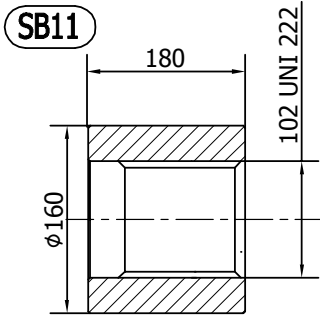


For: IAMD H55 A0  
IAMD H6 A0  
IAMD H6/C A0

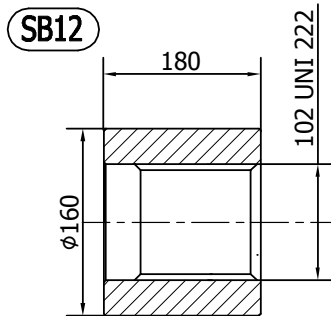


For: IAMD H55 A1  
IAMD H6 A1  
IAMD H7 A1  
IAMD H8 A1

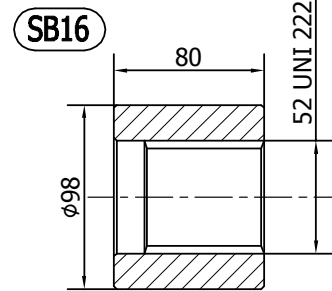
# SPLINED BILLETS



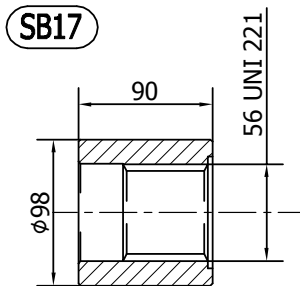
For: IAMD H7 A0  
IAMD H7/C A0



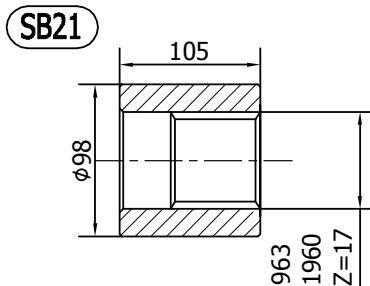
For: IAMD H8 A0  
IAMD H8/C A0



For: IAMD H4/C A0

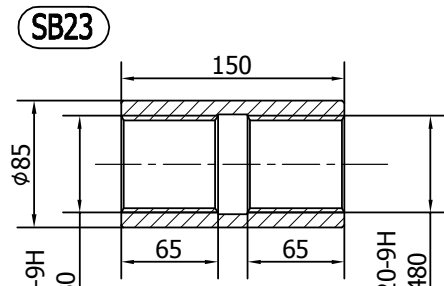


For: IAMD H4/GM4 A0  
IAMD H5/GM5 A0



For: IAMD H4/B45 A11

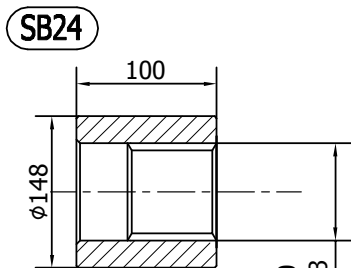
BS 3550 1963  
ASA.B.5.15.1960  
PITCH 8/16 Z=17



For: IAMD H4/GM4 A1  
IAMD H5/GM5 A1  
IAMD H55/GM5 A11

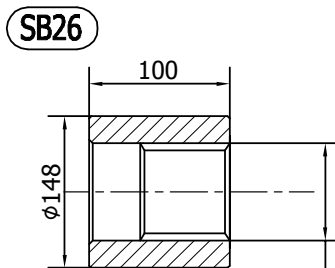
N65x3x20-9H  
DIN 5480

N65x3x20-9H  
DIN 5480



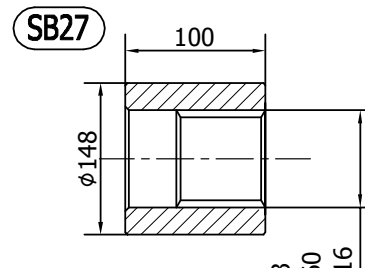
For: IAMD H7 A13  
IAMD H8 A11

BS 3550 1963  
ASA.B.5.15.1960  
PITCH 6/12 Z=23



For: IAMD H6/C A11

N90x4x21-9H  
DIN 5480



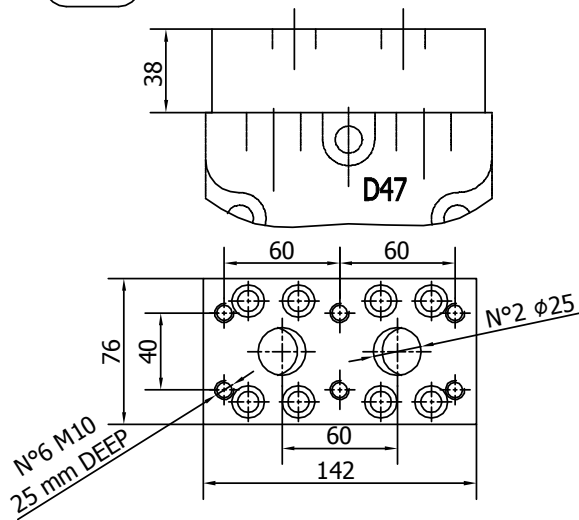
For: IAMD H7 A12

BS 3550 1963  
ASA.B.5.15.1960  
PITCH 5/10 Z=16

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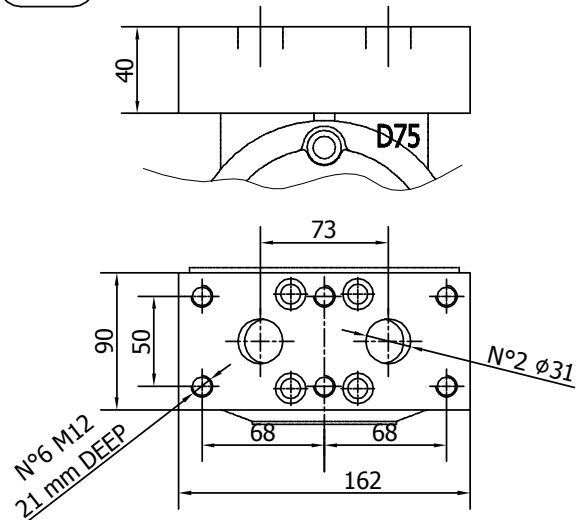
**ADAPTOR FLANGES**

**FL2**



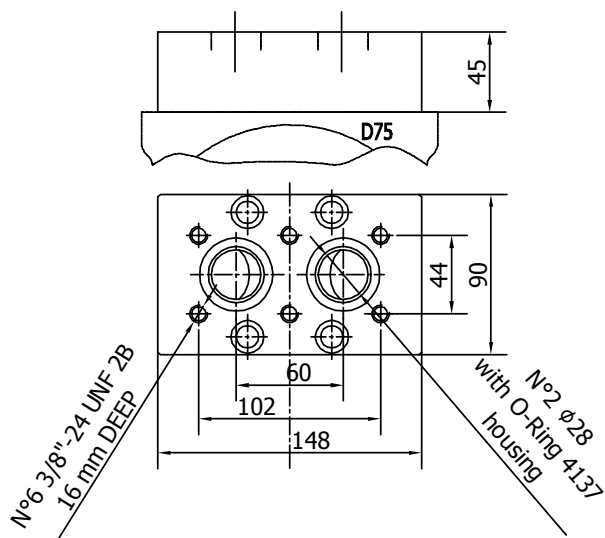
Connection block, fitting D47 distributor, for motor MR 350/450/500/600/700/800

**FL4**



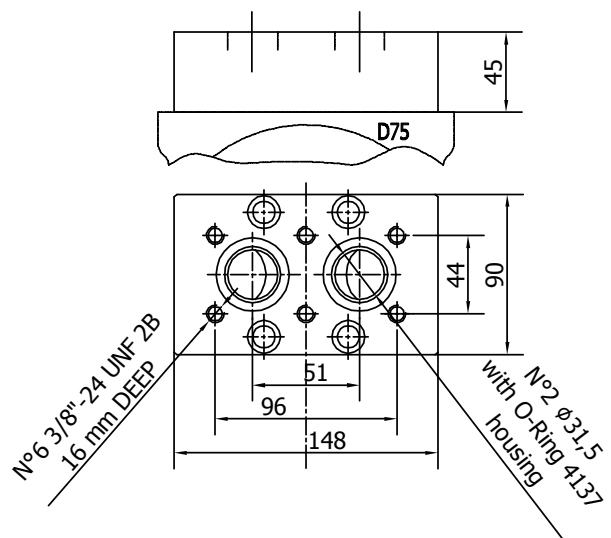
Connection block, fitting D75 distributor, for motor MR 1100/1400/1600/1800/2100

**FL5**



Connection block, fitting D75 distributor, for motor HMB 60/80/100 - S03

**FL6**

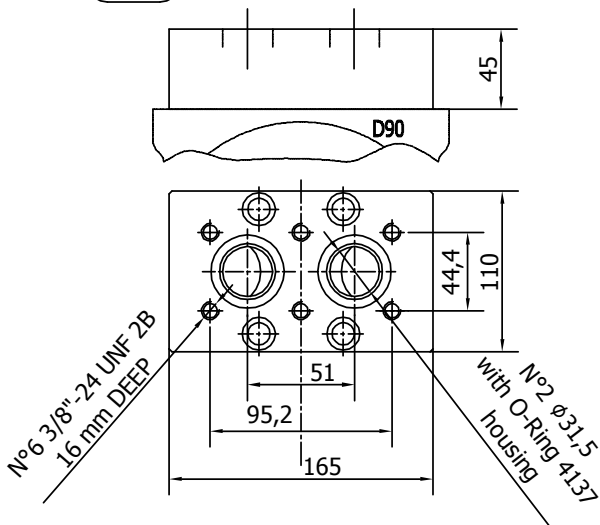


Connection block, fitting D75 distributor, for motor HMB 60/80/100 - S04

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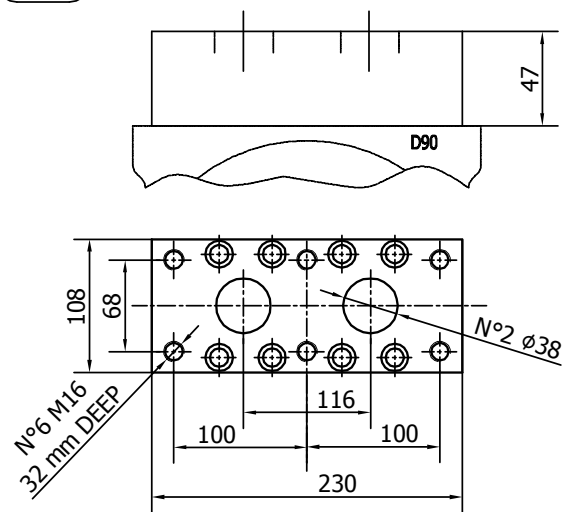
## ADAPTOR FLANGES

FL7



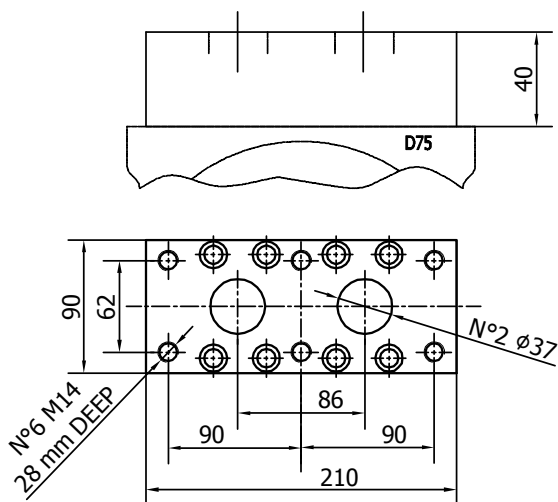
Connection block, fitting D90 distributor, for motor HMB 125/150/200 - S04

FL8



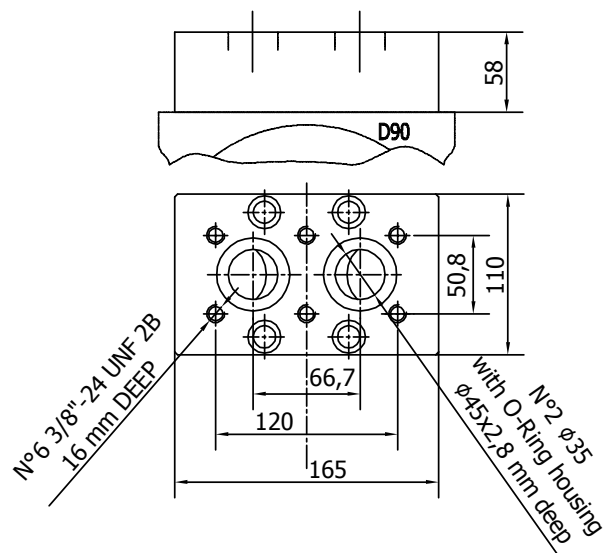
Connection block, fitting D90 distributor, for motor MR 3600/4500, MRE 5400

FL10



Connection block, fitting D75 distributor, for motor MR 2400/2800, MRE 3100

FL16



Connection block, fitting D90 distributor, for motor HMB 270/325 - S04

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# **ITALGROUP MOTORS**

## **IAMD SERIES - VALVES**

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### **TECHNICAL CATALOGUE**

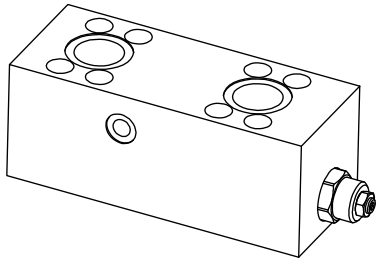
---

#### **INDEX - VALVES**

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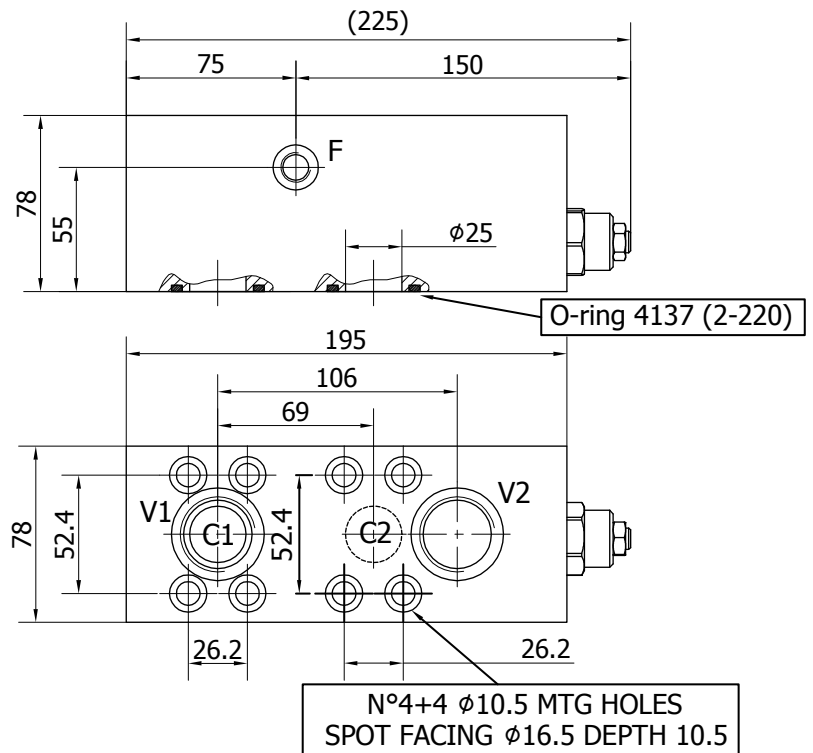
## SINGLE OVERCENTER VALVE - OVSA 160

### INSTALLATION DRAWING



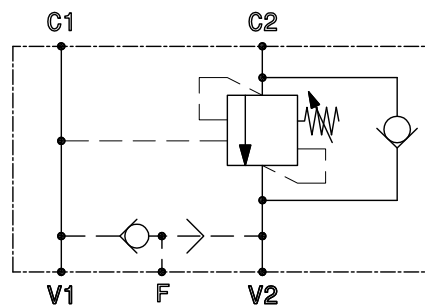
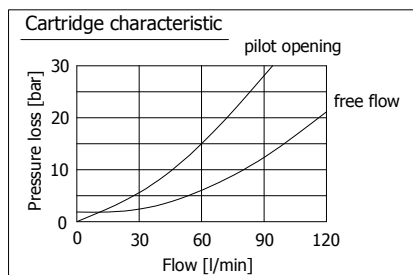
#### PORTS DIMENSION

V1,V2	1" BSP
F	1/4" BSP
C1,C2	O-ring 4137 Parker code 2-220



### TECHNICAL DATA - OVSA 160

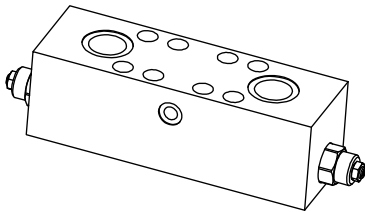
		OVSA.160.1.A.D47	OVSA.160.2.C.D47	OVSA.160.3.C.D47
NOMINAL FLOW	[l/min]	120	120	120
MAXIMUM FLOW	[l/min]	160	160	160
MAXIMUM PRESSURE	[bar]	350	350	350
PILOT RATIO	[-]	3:1	4.5:1	10:1
RELIEF VALVE SETTING RANGE	[bar]	70-280	140-350	140-350
STANDARD RELIEF SETTING	[bar]	210	210	210
BLOCK MATERIAL	[-]	steel	steel	steel
DISTRIBUTOR FITTING	[-]	D47	D47	D47



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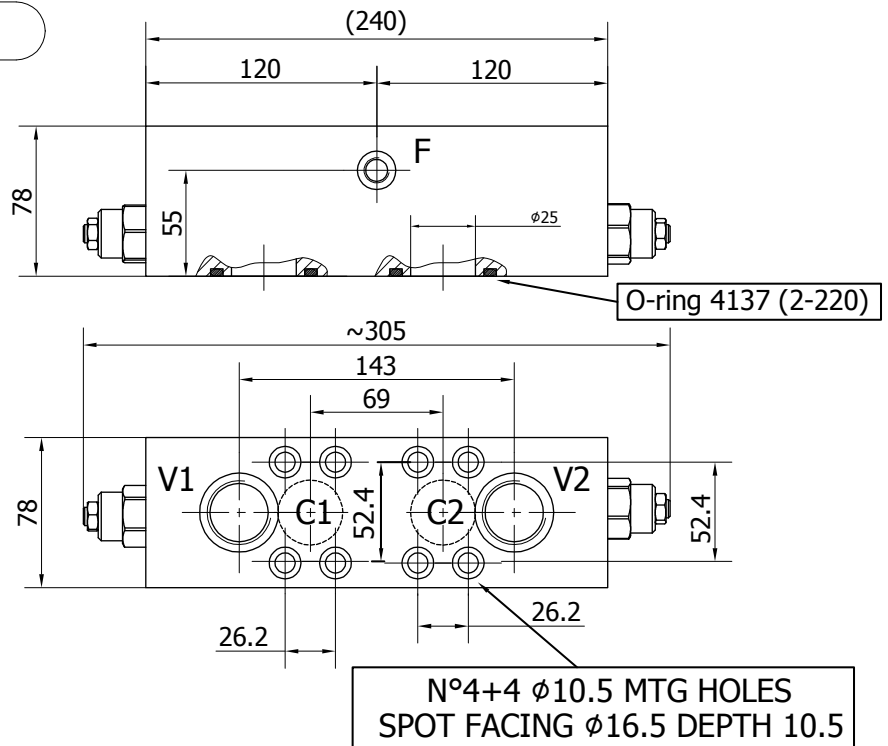
# DOUBLE OVERCENTER VALVE - OVDA 160

## INSTALLATION DRAWING



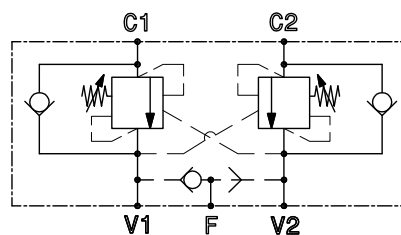
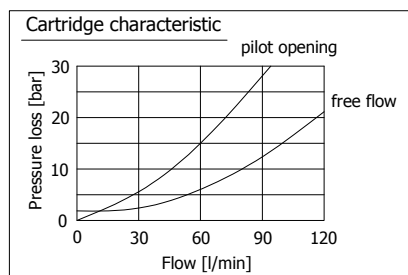
### PORTS DIMENSION

V1,V2	1" BSP
F	1/4" BSP
C1,C2	O-ring 4137 Parker code 2-220



## TECHNICAL DATA - OVDA 160

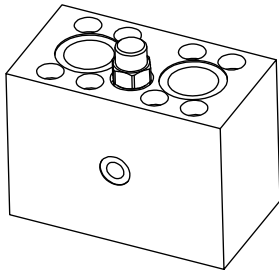
		OVDA.160.1.A.D47	OVDA.160.2.C.D47	OVDA.160.3.C.D47
NOMINAL FLOW	[l/min]	120	120	120
MAXIMUM FLOW	[l/min]	160	160	160
MAXIMUM PRESSURE	[bar]	350	350	350
PILOT RATIO	[-]	3:1	4.5:1	10:1
RELIEF VALVE SETTING RANGE	[bar]	70-280	140-350	140-350
STANDARD RELIEF SETTING	[bar]	210	210	210
BLOCK MATERIAL	[-]	steel	steel	steel
DISTRIBUTOR FITTING	[-]	D47	D47	D47



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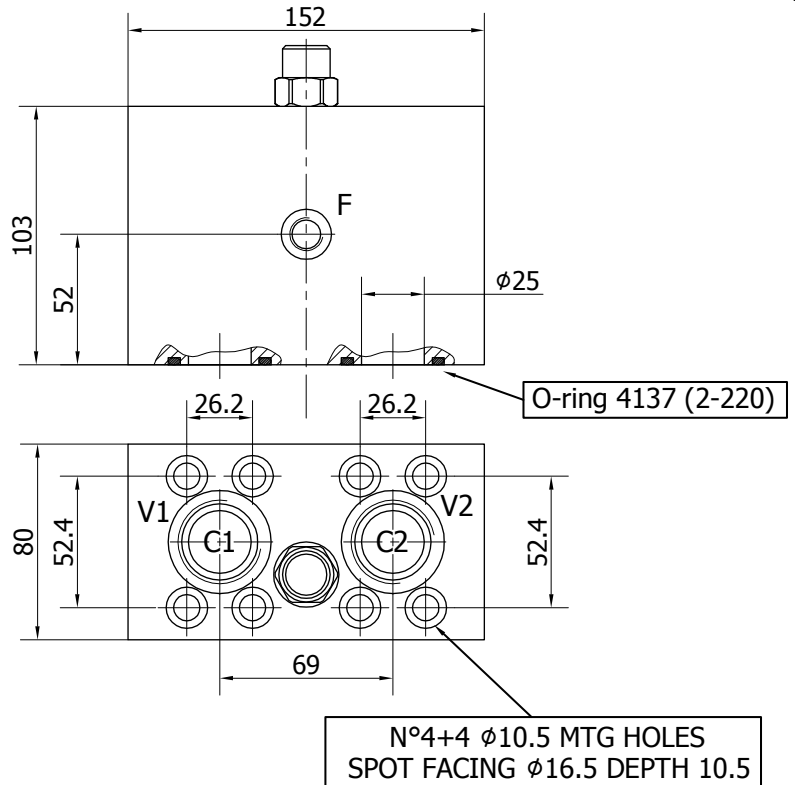
**FLUSHING VALVE - AP40**

**INSTALLATION DRAWING**



**PORTS DIMENSION**

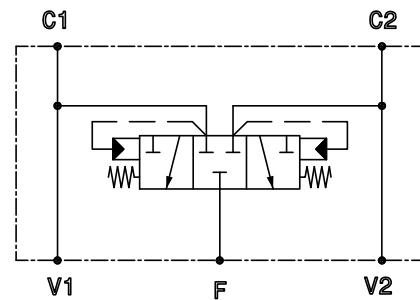
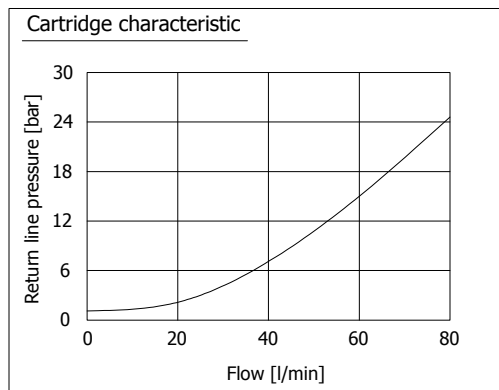
V1,V2	1" BSP
F	1/4" BSP
C1,C2	O-ring 4137 Parker code 2-220



**TECHNICAL DATA - AP40**

**AP40.D47**

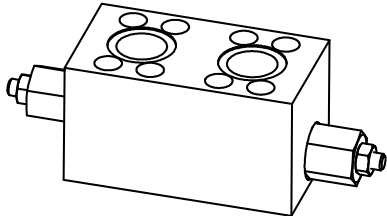
MAXIMUM FLUSHING FLOW	[l/min]	80
MAXIMUM PRESSURE	[bar]	350
BLOCK MATERIAL	[ ]	steel
DISTRIBUTOR FITTING	[ ]	D47



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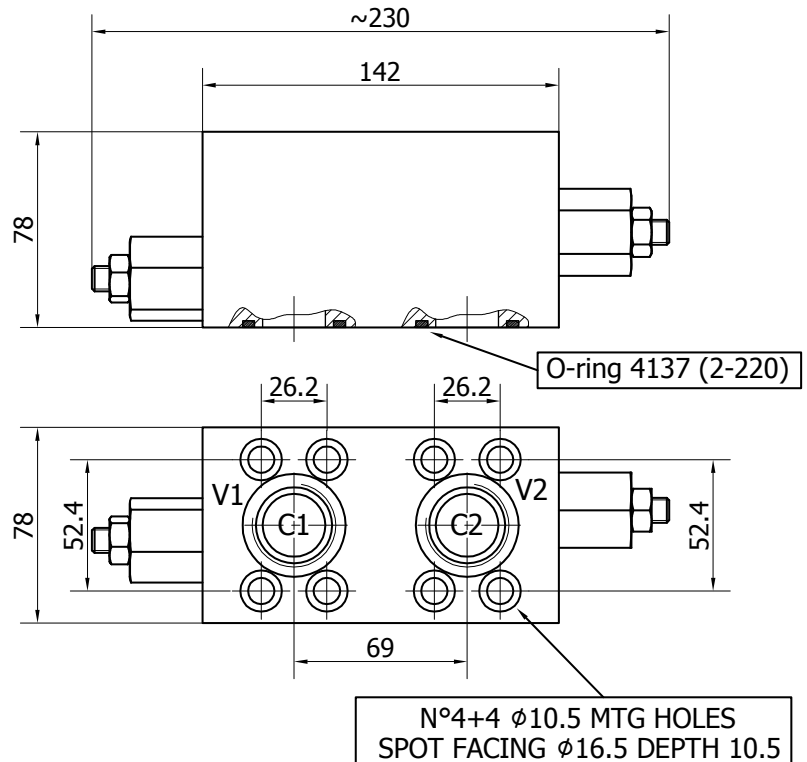
## DOUBLE RELIEF VALVE- RVDA 80

### INSTALLATION DRAWING



#### PORTS DIMENSION

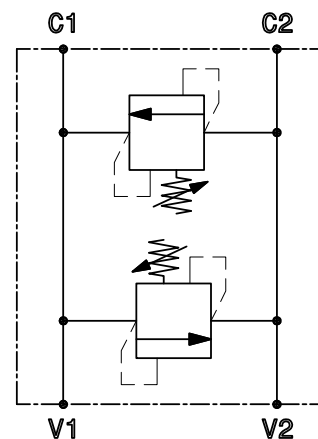
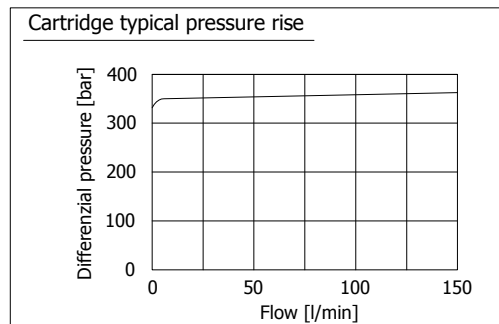
V1,V2	1" BSP
C1,C2	O-ring 4137 Parker code 2-220



### TECHNICAL DATA - RVDA 80

#### RVDA.80.C.D47

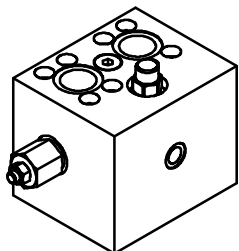
NOMINAL FLOW	[l/min]	150
MAXIMUM FLOW	[l/min]	200
MAXIMUM PRESSURE	[bar]	350
RELIEF VALVE SETTING RANGE	[bar]	20-350
STANDARD RELIEF SETTING	[bar]	20
BLOCK MATERIAL	[ ]	steel
DISTRIBUTOR FITTING	[ ]	D47



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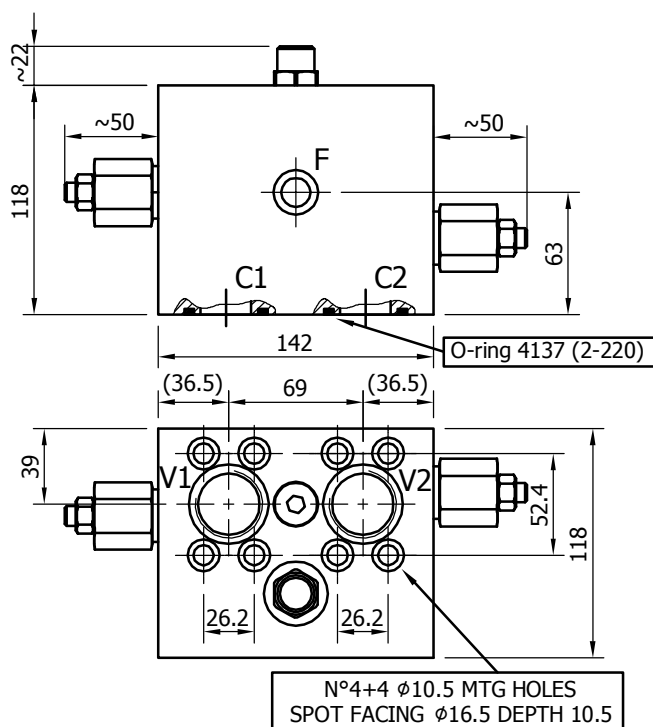
**DOUBLE RELIEF WITH FLUSHING - RVDAP80**

**INSTALLATION DRAWING**



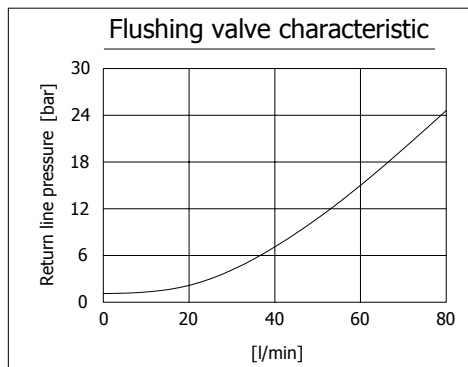
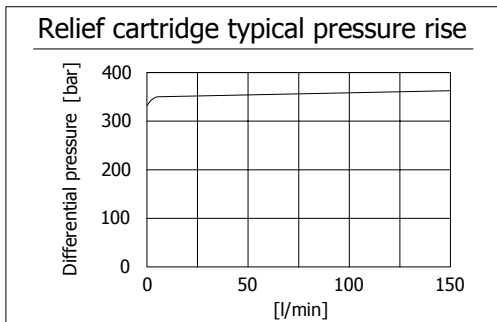
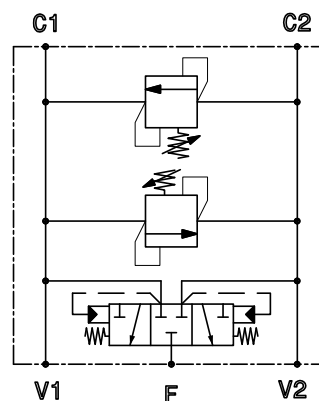
PORTS DIMENSION

V1,V2	1" BSP
F	1/4" BSP
C1,C2	O-ring 4137 Parker code 2-220



**TECHNICAL DATA - RVDAP 80**

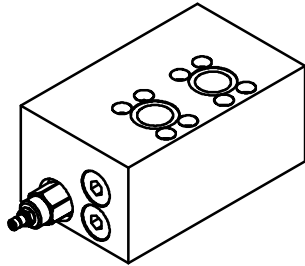
RVDAP 80		
RELIEF VALVE MAXIMUM FLOW	[l/min]	200
RELIEF VALVE SETTING RANGE	[bar]	20-350
STANDARD RELIEF SETTING	[bar]	70
MAXIMUM FLUSHING FLOW	[l/min]	80
MAXIMUM PRESSURE	[bar]	350
BLOCK MATERIAL	[ ]	steel
DISTRIBUTOR FITTING	[ ]	D47



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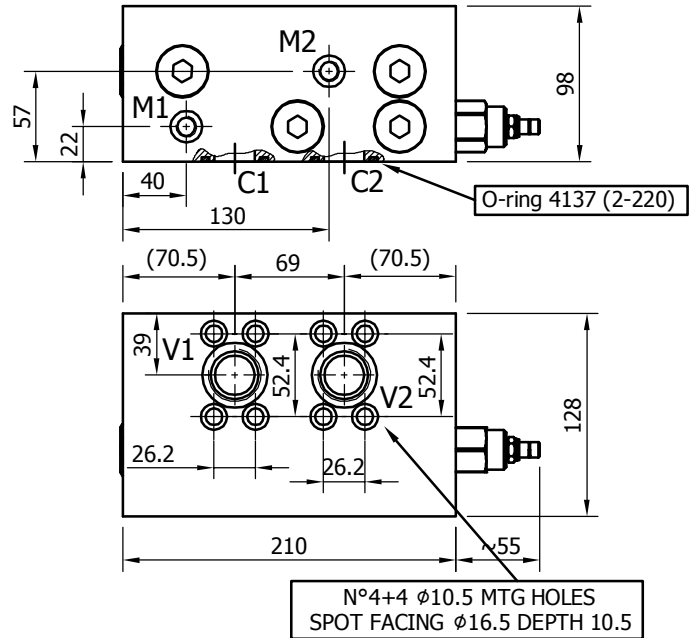
# SINGLE RELIEF / ANTICAVITATION- RVSAC200

## INSTALLATION DRAWING



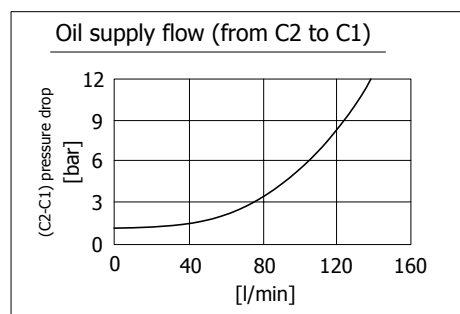
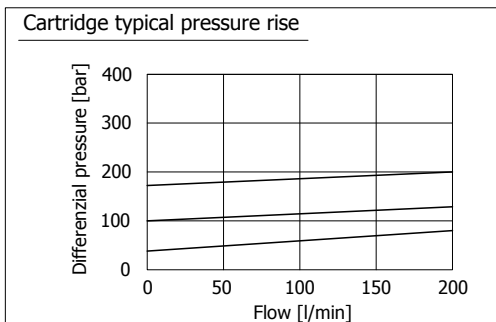
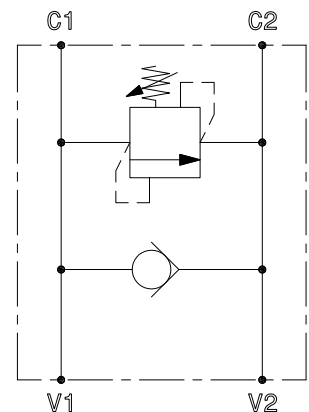
PORTS DIMENSION

V1,V2	1" BSP
M1,M2	1/4" BSP
C1,C2	O-ring 4137 Parker code 2-220



## TECHNICAL DATA - RVSAC 200

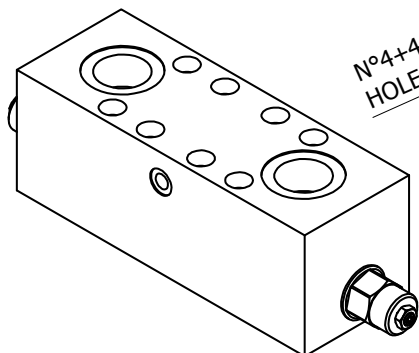
		RVSAC200
RELIEF VALVE MAXIMUM FLOW	[l/min]	200
MAXIMUM PRESSURE	[bar]	350
RELIEF VALVE SETTING RANGE	[bar]	70-420
STANDARD RELIEF SETTING	[bar]	70
CHECK VALVE MAXIMUM FLOW	[l/min]	160
BLOCK MATERIAL	[ ]	steel
DISTRIBUTOR FITTING	[ ]	D47



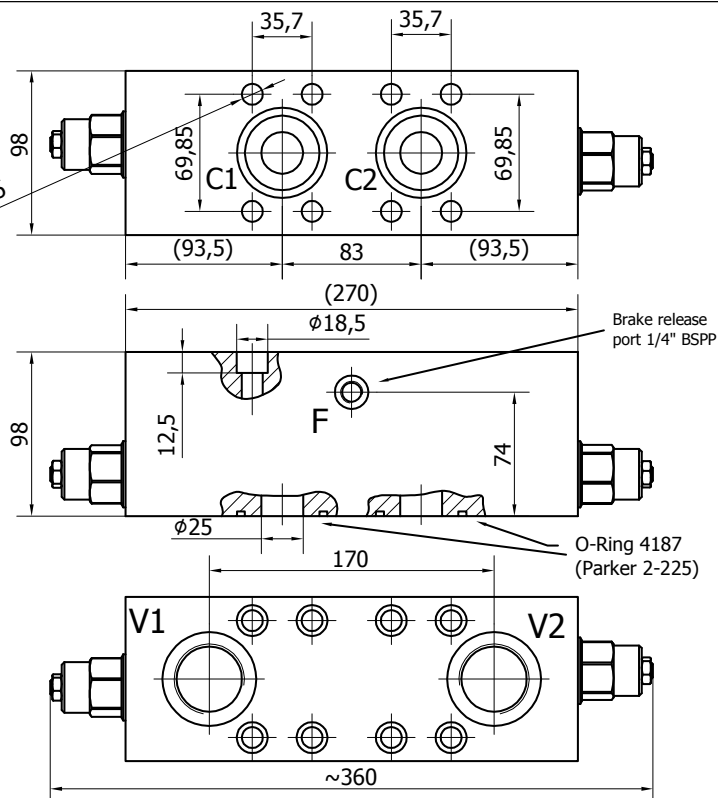
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## DOUBLE OVERCENTER VALVE - OVDA 300

### INSTALLATION DRAWING



N°4+4 MTG HOLES Ø12,5

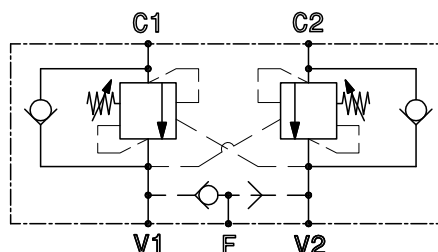
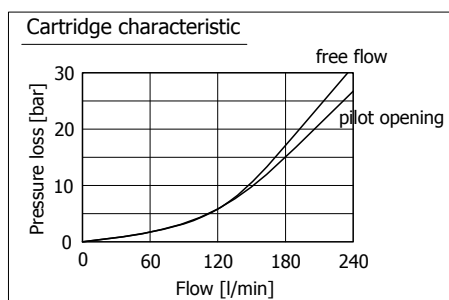


#### PORTS DIMENSION

V1,V2	1"1/4 BSPP
F	1/4" BSPP
C1,C2	O-ring 4187 Parker code 2-225

### TECHNICAL DATA - OVDA 300

		OVDA.300.1.A.D75	OVDA.300.4.C.D75	OVDA.300.2.C.D75
NOMINAL FLOW	[l/min]	240	240	240
MAXIMUM FLOW	[l/min]	300	300	300
MAXIMUM PRESSURE	[bar]	350	350	350
PILOT RATIO	[-]	3:1	10:1	4.5:1
RELIEF VALVE SETTING RANGE	[bar]	70-280	140-350	140-350
STANDARD RELIEF SETTING	[bar]	210	210	210
BLOCK MATERIAL	[-]	steel	steel	steel
DISTRIBUTOR FITTING	[-]	D75	D75	D75

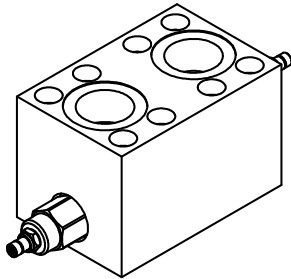


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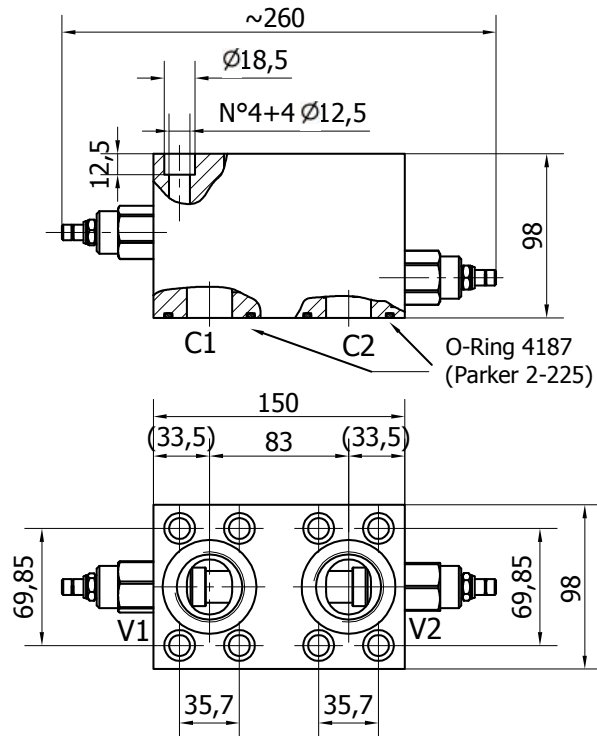
# DOUBLE RELIEF VALVE- RVDA 200

## INSTALLATION DRAWING



### PORTS DIMENSION

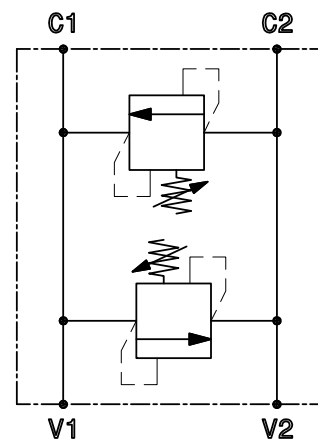
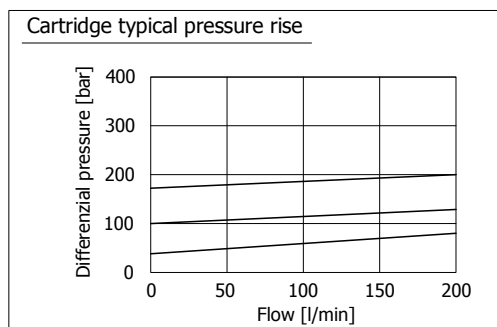
V1,V2	1"1/4 BSP
C1,C2	O-ring 4187 Parker code 2-225



## TECHNICAL DATA - RVDA 200

### RVDA.200.C.D75

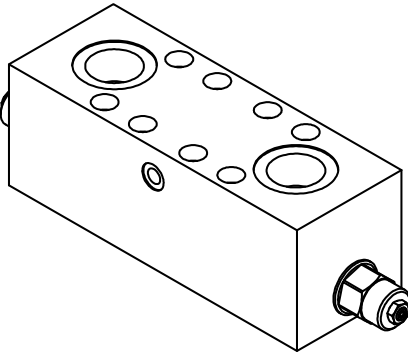
RELIEF VALVE MAXIMUM FLOW	[l/min]	200
MAXIMUM PRESSURE	[bar]	350
RELIEF VALVE SETTING RANGE	[bar]	70-420
STANDARD RELIEF SETTING	[bar]	70
BLOCK MATERIAL	[ ]	steel
DISTRIBUTOR FITTING	[ ]	D75



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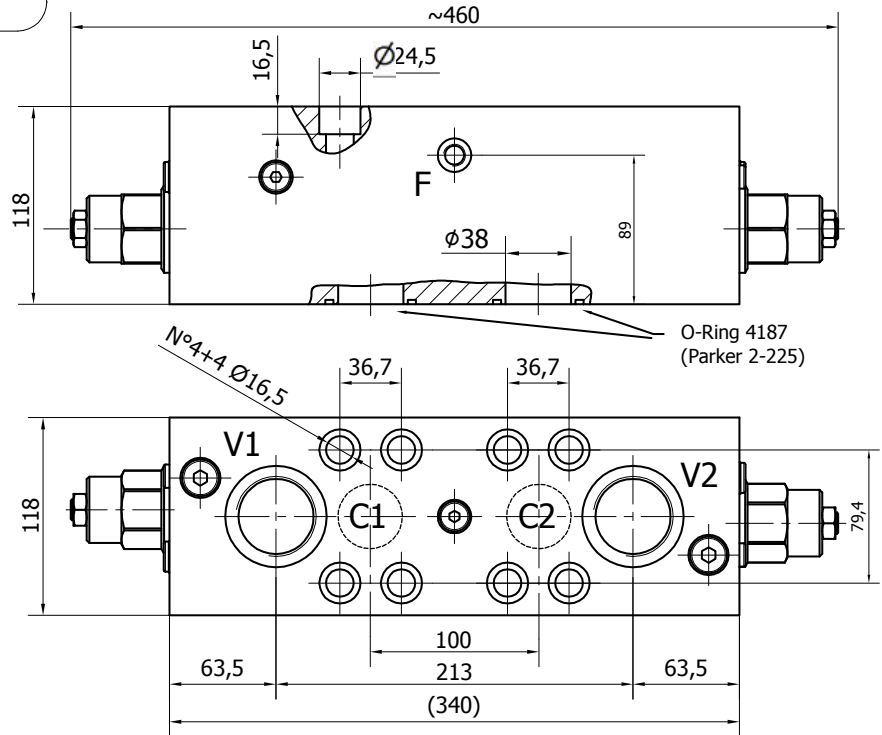
## DOUBLE OVERCENTER VALVE - OVDA 480

### INSTALLATION DRAWING



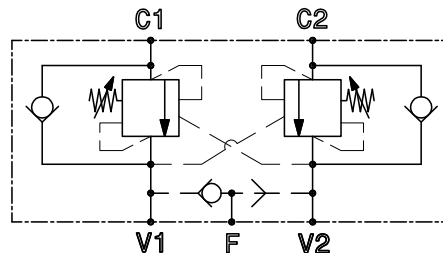
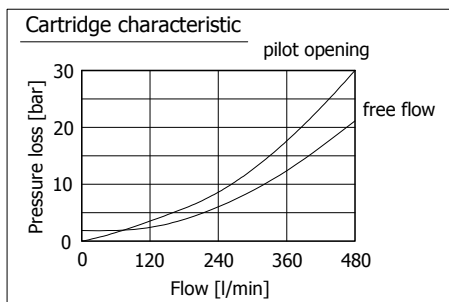
#### PORTS DIMENSION

V1,V2	1"1/2 BSPP
F	1/4" BSPP
C1,C2	O-ring 4187 Parker code 2-225



### TECHNICAL DATA - OVDA 480

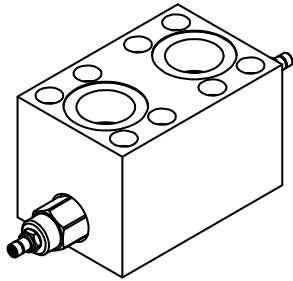
		OVDA.480.1.A.D90	OVDA.480.4.C.D90	OVDA.480.2.C.D90
NOMINAL FLOW	[l/min]	480	480	480
MAXIMUM FLOW	[l/min]	600	600	600
MAXIMUM PRESSURE	[bar]	350	350	350
PILOT RATIO	[-]	3:1	10:1	4.5:1
RELIEF VALVE SETTING RANGE	[bar]	70-280	140-350	140-350
STANDARD RELIEF SETTING	[bar]	210	210	210
BLOCK MATERIAL	[-]	steel	steel	steel
DISTRIBUTOR FITTING	[-]	D90	D90	D90



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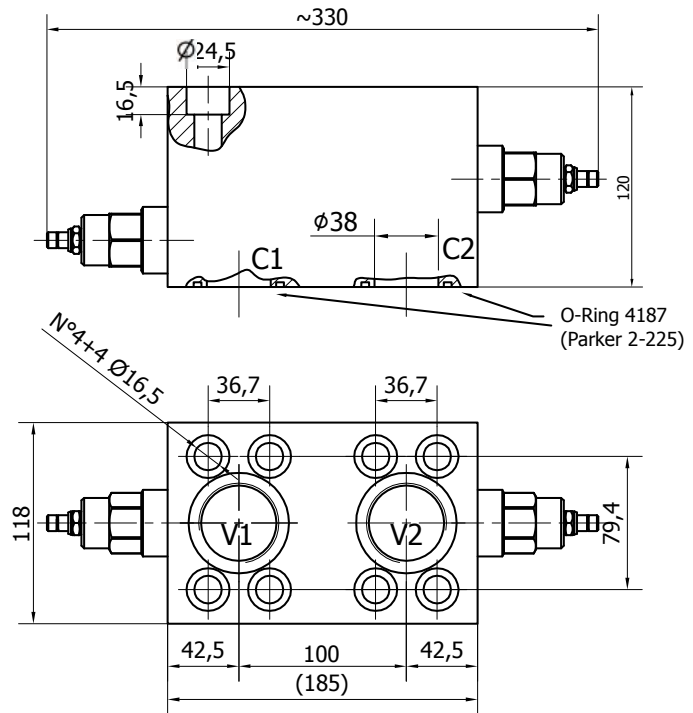
# DOUBLE RELIEF VALVE- RVDA 380

## INSTALLATION DRAWING



### PORTS DIMENSION

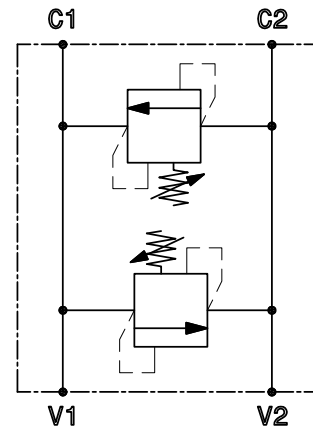
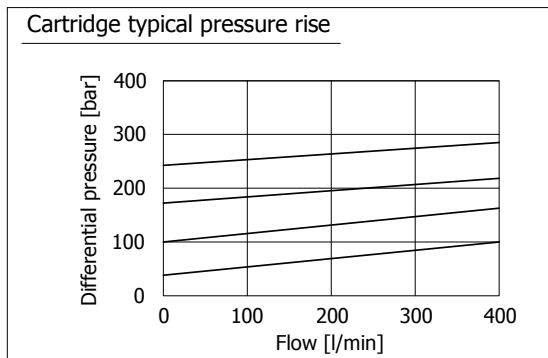
V1,V2	1"1/2 BSP
C1,C2	O-ring 4187 Parker code 2-225



## TECHNICAL DATA - RVDA 380

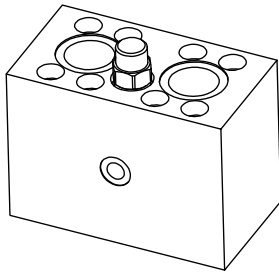
### RVDA.380.C.D90

RELIEF VALVE MAXIMUM FLOW	[l/min]	380
MAXIMUM PRESSURE	[bar]	350
RELIEF VALVE SETTING RANGE	[bar]	70-420
STANDARD RELIEF SETTING	[bar]	70
BLOCK MATERIAL	[ ]	steel
DISTRIBUTOR FITTING	[ ]	D90



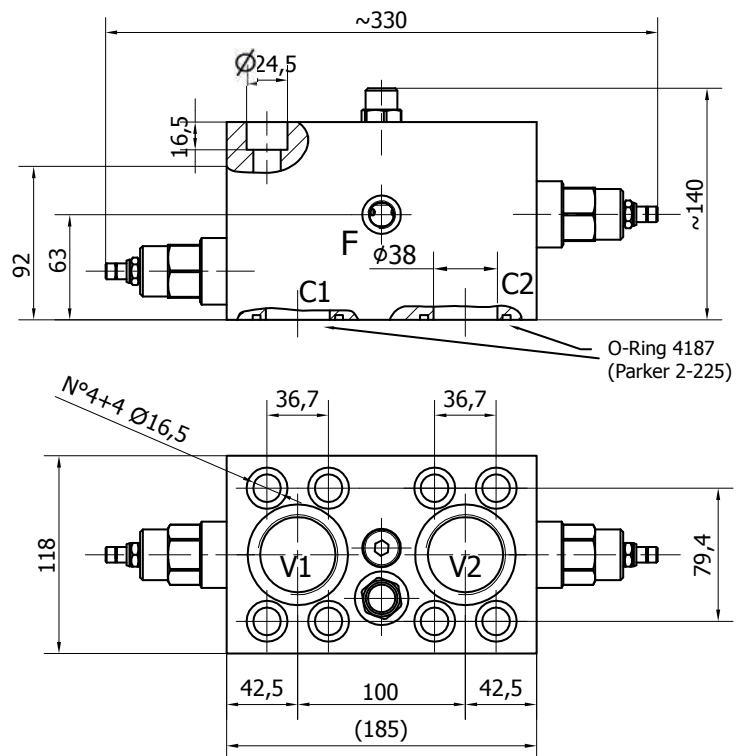
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**INSTALLATION DRAWING**



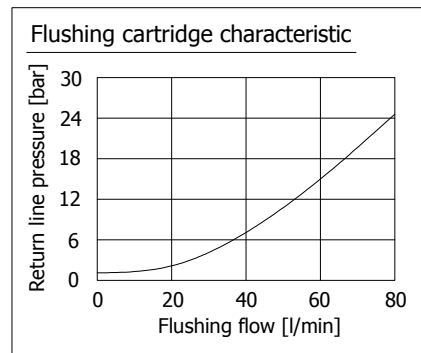
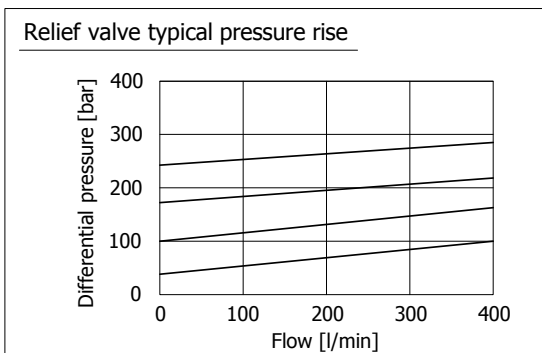
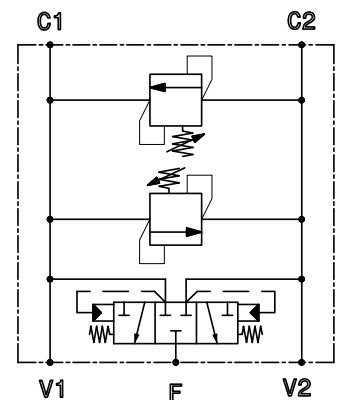
**PORTS DIMENSION**

V1,V2	1"1/2 BSP
F	1/4" BSP
C1,C2	O-ring 4187 Parker code 2-225



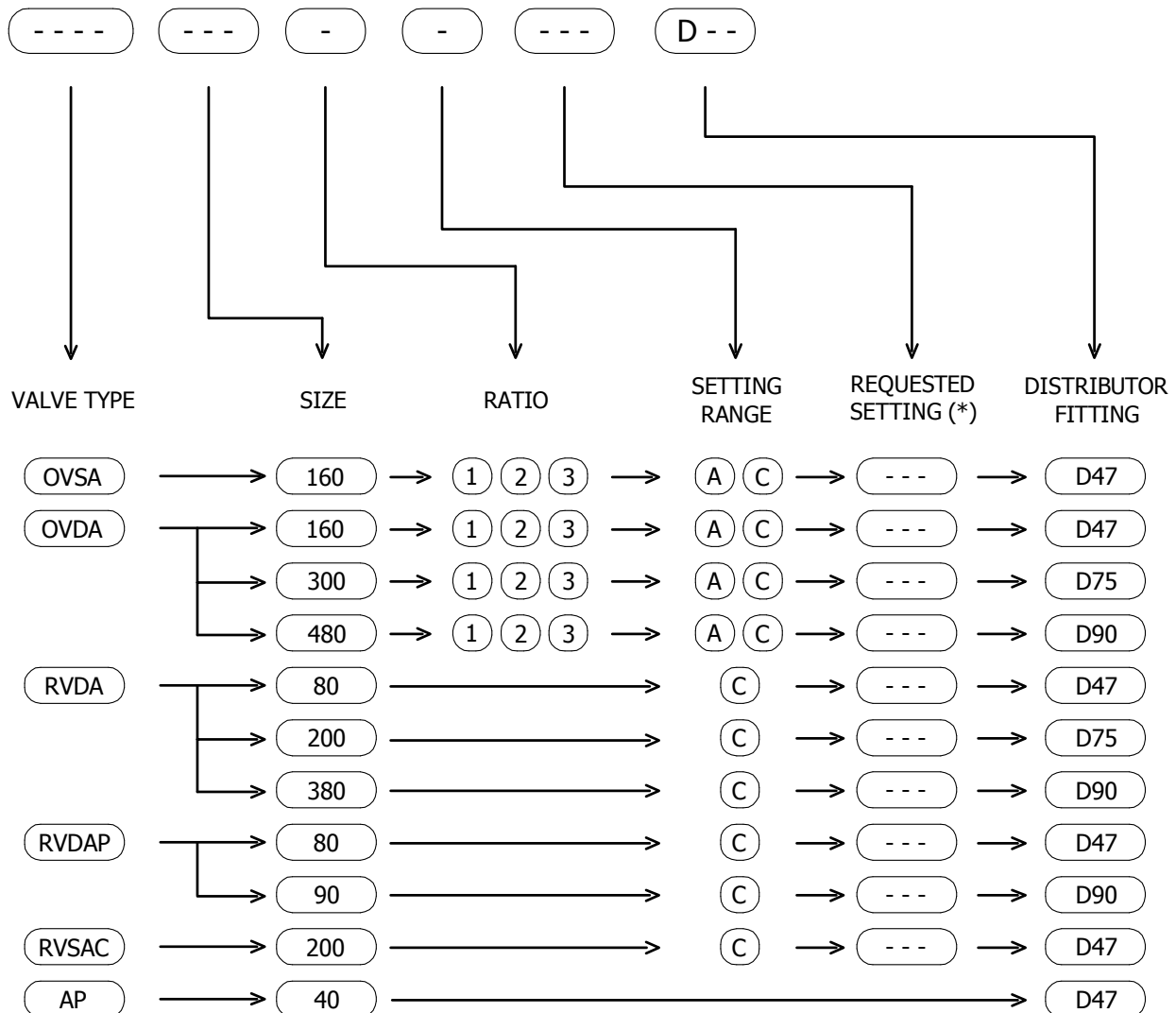
**TECHNICAL DATA - RVDAP 90**

RVDAP 90		
RELIEF VALVE MAXIMUM FLOW	[l/min]	380
RELIEF VALVE SETTING RANGE	[bar]	70-420
STANDARD RELIEF SETTING	[bar]	70
MAXIMUM FLUSHING FLOW	[l/min]	80
MAXIMUM PRESSURE	[bar]	350
BLOCK MATERIAL	[ ]	steel
DISTRIBUTOR FITTING	[ ]	D90



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## VALVES ORDERING CODE



(\* ) If not specified, the valve will be supplied with the standard setting. Refer to the valves datasheets for the standard setting value.

### EXAMPLES:

OVDA 160 1 A 200 D47

AP40 D47

RVDA 380 C D90

## CONTACT US

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

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Greece  
Iceland  
Italy  
Netherlands  
Norway  
Poland  
Portugal  
Russia  
Slovenia  
Spain  
Sweden  
Switzerland  
Turkey  
Ukraine  
United Kingdom

## Africa

Egypt  
South Africa  
Tunisia

## America

Argentina  
Brazil  
Canada  
Chile  
Mexico  
Peru  
USA  
Colombia

## Asia

China  
Hong Kong  
India  
Indonesia  
Iran  
Israel  
Philippines  
Russia  
Belarus  
Singapore  
South Korea  
Thailand  
Taiwan  
United Arab Emirates  
Vietnam

## Oceania

Australia  
New Zealand

