Italgroup®

HYDRAULIC MOTORS
ITALY



IAM

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ITALGROUP SRL IAM SERIES - IAM H3 GENERAL CATALOGUE

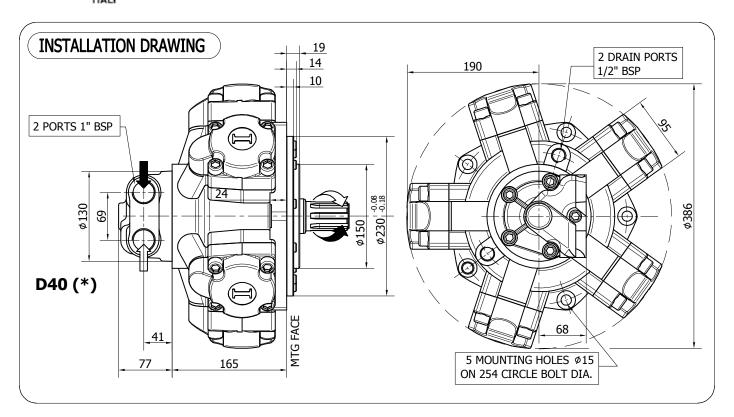
INDEX - IAM H3

IAM H3 - INSTALLATION DRAWING	Pag	72 - 73
IAM H3/C - INSTALLATION DRAWING	. "	74 - 75
IAM H3/B30 - INSTALLATION DRAWING	. "	76 - 77
IAM 800 H3 - INSTALLATION DRAWING		78 - 79
IAM 800/N H3 - INSTALLATION DRAWING	. "	80 - 81
IAM H3/GM3 - INSTALLATION DRAWING		82 - 83
IAM H3/S - INSTALLATION DRAWING	. "	84 - 85
IAM H3 - PERFORMANCE DRAWINGS		86 - 90
IAM H3 - ORDERING CODE	**	91

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IAM H3



TECHNICAL DATA

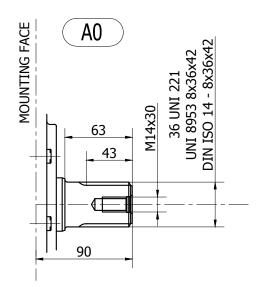
		350 (*****)	400	450	500	600	650	700
DISPLACEMENT	[cc]	349	397	452	491	594	660	707
SPECIFIC TORQUE	[Nm/bar]	5.6	6.3	7.2	7.8	9.4	10.5	11.2
MAX. CONT. PRESSURE	[bar]	250	250	250	250	250	250	250
HYDROSTATIC TEST PRES- SURE	[bar]	420	420	420	420	420	420	420
MAX. CONT. SPEED	[rpm]	630	600	600	600	550	500	450
PEAK SPEED (***)	[rpm]	700	680	680	680	630	580	500
MAX. CONT. POWER (****)	[kW]	45	45	45	45	45	45	45
MAX. POWER	[kW]	68	68	68	68	68	68	68
MAX. CASE PRESSURE	[bar]	6	6	6	6	6	6	6
DRY WEIGHT	[kg]	68	68	68	68	68	68	68
TEMPERATURE RANGE (**)	[°C]	-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. 176-177) for differents distributor interfaces.
- (**) Please refer to the hydraulic fluid recommendations (pag. 10-11).
- (***) Do not exceed maximum power (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.
- (*****) Only A0 shaft is available for 350 cc displacement.

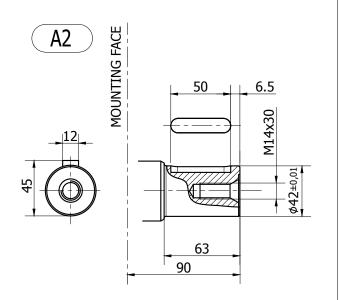
SHAFTS - IAM H3

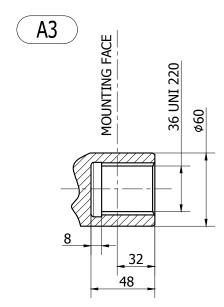


SHAFT CONFIGURATIONS



Available spline billet: SB3

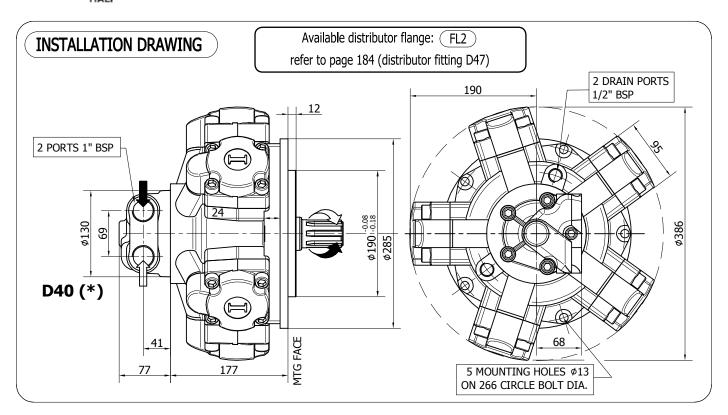




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IAM H3/C



TECHNICAL DATA

		400	450	500	600	650	700
DISPLACEMENT	[cc]	397	452	491	594	660	707
SPECIFIC TORQUE	[Nm/bar]	6.3	7.2	7.8	9.4	10.5	11.2
MAX. CONT. PRESSURE	[bar]	250	250	250	250	250	250
HYDROSTATIC TEST PRES- SURE	[bar]	420	420	420	420	420	420
MAX. CONT. SPEED	[rpm]	600	600	600	550	500	450
PEAK SPEED (***)	[rpm]	680	680	680	630	580	500
MAX. CONT. POWER (****)	[kW]	45	45	45	45	45	45
MAX. POWER	[kW]	68	68	68	68	68	68
MAX. CASE PRESSURE	[bar]	6	6	6	6	6	6
DRY WEIGHT	[kg]	68	68	68	68	68	68
TEMPERATURE RANGE (**)	[°C]	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70

^{- (*)} The standard distributor (D40) is shown. Please refer to distributors section (pag. 176-177) for differents distributor interfaces.

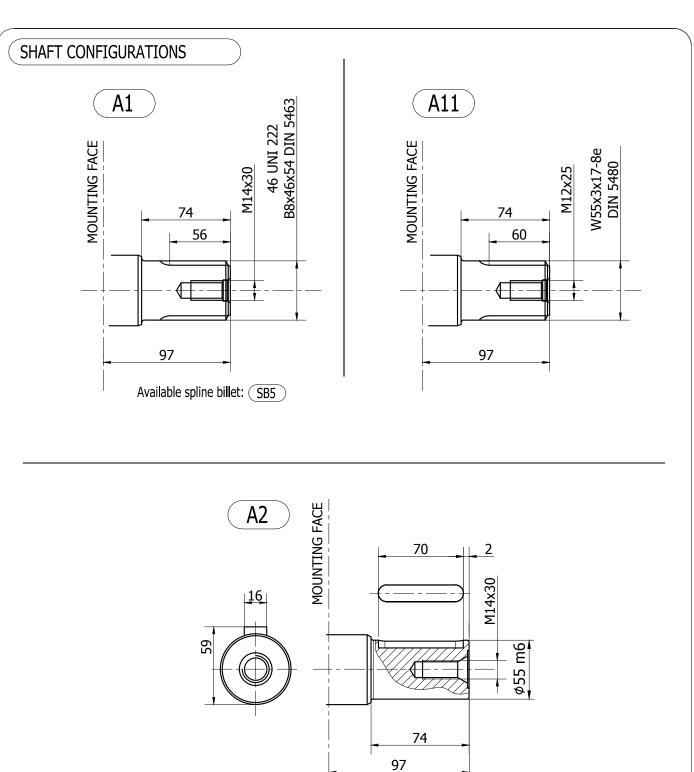
^{- (**)} Please refer to the hydraulic fluid recommendations (pag. 10-11).

^{- (***)} Do not exceed maximum power (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.

SHAFTS - IAM H3/C

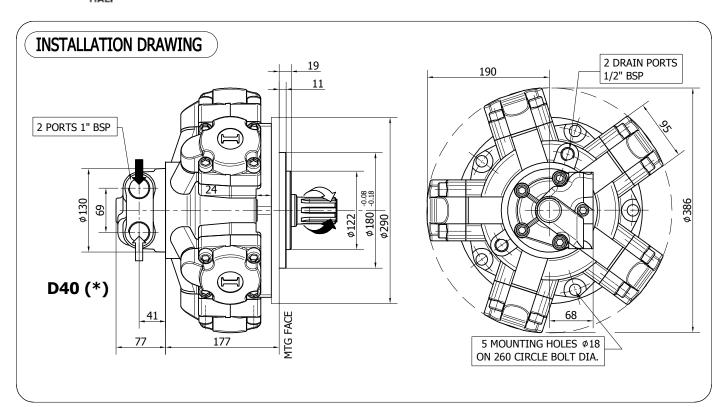




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IAM H3/B30



TECHNICAL DATA

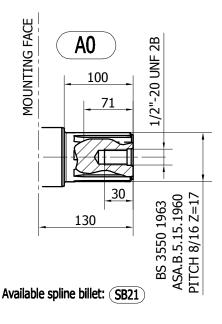
		400	450	500	600	650	700
DISPLACEMENT	[cc]	397	452	491	594	660	707
SPECIFIC TORQUE	[Nm/bar]	6.3	7.2	7.8	9.4	10.5	11.2
MAX. CONT. PRESSURE	[bar]	250	250	250	250	250	250
HYDROSTATIC TEST PRES- SURE	[bar]	420	420	420	420	420	420
MAX. CONT. SPEED	[rpm]	600	600	600	550	500	450
PEAK SPEED (***)	[rpm]	680	680	680	630	580	500
MAX. CONT. POWER (****)	[kW]	45	45	45	45	45	45
MAX. POWER	[kW]	68	68	68	68	68	68
MAX. CASE PRESSURE	[bar]	6	6	6	6	6	6
DRY WEIGHT	[kg]	68	68	68	68	68	68
TEMPERATURE RANGE (**)	[°C]	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70

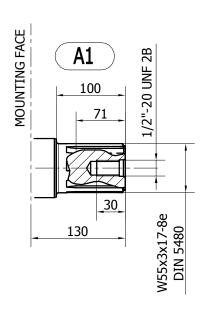
- (*) The standard distributor (D40) is shown. Please refer to distributors section (pag. 176-177) for differents distributor interfaces.
- (**) Please refer to the hydraulic fluid recommendations (pag. 10-11).
- (***) Do not exceed maximum power (see pag. 13).
- (****) For motor operation with a continuous duty cycle at maximum continuous power the flushing is usually required. For more information please contact our technical department.

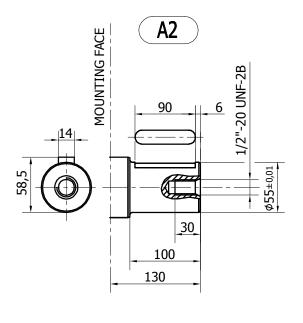
SHAFTS - IAM H3/B30

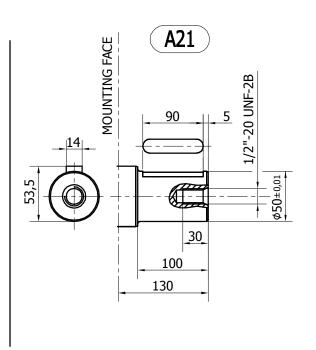


SHAFT CONFIGURATIONS





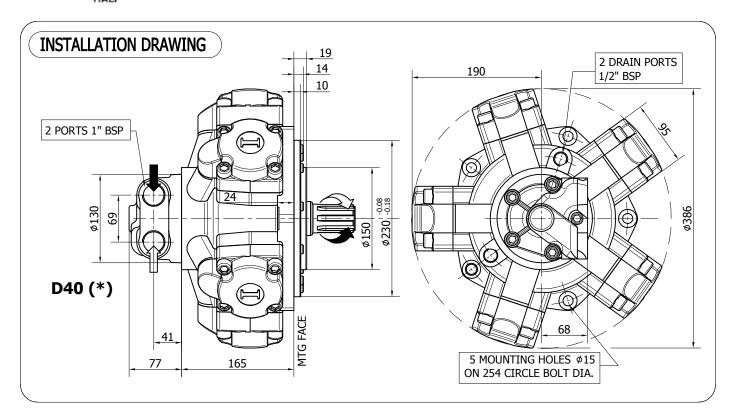




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IAM 800 H3



TECHNICAL DATA

		800 (*****)
DISPLACEMENT	[cc]	791
SPECIFIC TORQUE	[Nm/bar]	12.6
MAX. CONT. PRESSURE	[bar]	250
HYDROSTATIC TEST PRES- SURE	[bar]	420
MAX. CONT. SPEED	[rpm]	400
PEAK SPEED (***)	[rpm]	450
MAX. CONT. POWER (****)	[kW]	45
MAX. POWER	[kW]	68
MAX. CASE PRESSURE	[bar]	6
DRY WEIGHT	[kg]	68
TEMPERATURE RANGE (**)	[°C]	-30÷70

- (*) The standard distributor (D40) is shown. Please refer to distributors section (pag. 176-177) for differents distributor interfaces.
- (**) Please refer to the hydraulic fluid recommendations (pag. 10-11).
- (***) Do not exceed maximum power (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.
- (*****) Only for spare parts market. Please contact our technical department for more details.

SHAFTS - IAM 800 H3

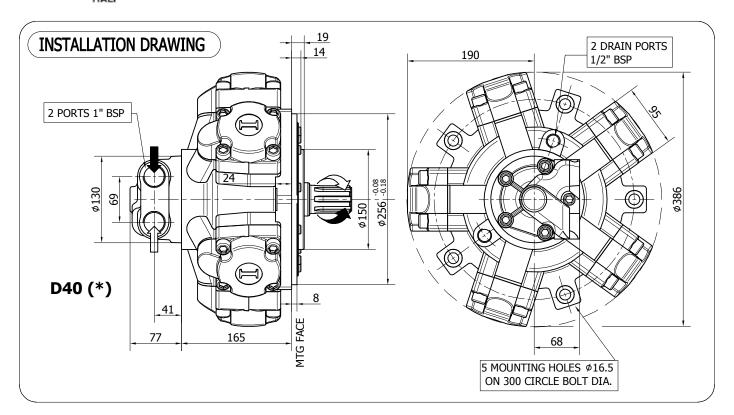


SHAFT CONFIGURATIONS A11 **A2** A1 MOUNTING FACE DIN ISO 14 - 8x46x54 46 UNI 221 UNI 8953 8x46x54 **JIN ISO 14 - 8x46x50** 46 UNI 220 UNI 8953 8x46x50 MOUNTING FACE MOUNTING FACE 6.5 M14x30 M14x30 56 φ42±0,01 M14x30 63 101 90 90 Available spline billet: SB4 Available spline billet: SB5 **A21 A22** MOUNTING FACE MOUNTING FACE 60 M14x30 M14x30 16 14 $\phi 50 \pm 0,01$ Ø50±0,01 90 90

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IAM 800/N H3



TECHNICAL DATA

		800 (*****)
DISPLACEMENT	[cc]	791
SPECIFIC TORQUE	[Nm/bar]	12.6
MAX. CONT. PRESSURE	[bar]	250
HYDROSTATIC TEST PRES- SURE	[bar]	420
MAX. CONT. SPEED	[rpm]	400
PEAK SPEED (***)	[rpm]	450
MAX. CONT. POWER (****)	[kW]	45
MAX. POWER	[kW]	68
MAX. CASE PRESSURE	[bar]	6
DRY WEIGHT	[kg]	68
TEMPERATURE RANGE (**)	[°C]	-30÷70

- (*) The standard distributor (D40) is shown. Please refer to distributors section (pag. 176-177) for differents distributor interfaces.
- (**) Please refer to the hydraulic fluid recommendations (pag. 10-11).
- (***) Do not exceed maximum power (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.
- (*****) Only for spare parts market. Please contact our technical department for more details.

SHAFTS - IAM 800/N H3

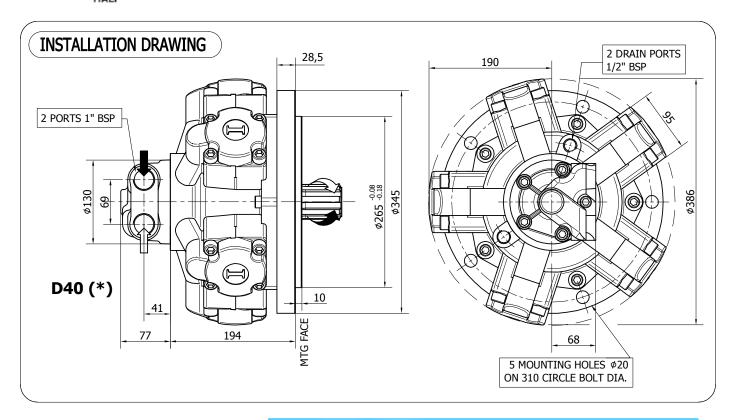


SHAFT CONFIGURATIONS A11 **A2** A1 MOUNTING FACE DIN ISO 14 - 8x46x54 46 UNI 221 UNI 8953 8x46x54 **JIN ISO 14 - 8x46x50** 46 UNI 220 UNI 8953 8x46x50 MOUNTING FACE MOUNTING FACE 6.5 M14x30 M14x30 56 M14x30 63 101 90 90 Available spline billet: SB4 Available spline billet: SB5 **A21 A22** MOUNTING FACE MOUNTING FACE 60 M14x30 M14x30 14 16 $\phi 50 \pm 0,01$ Ø50±0,01 90 90

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IAM H3/GM3



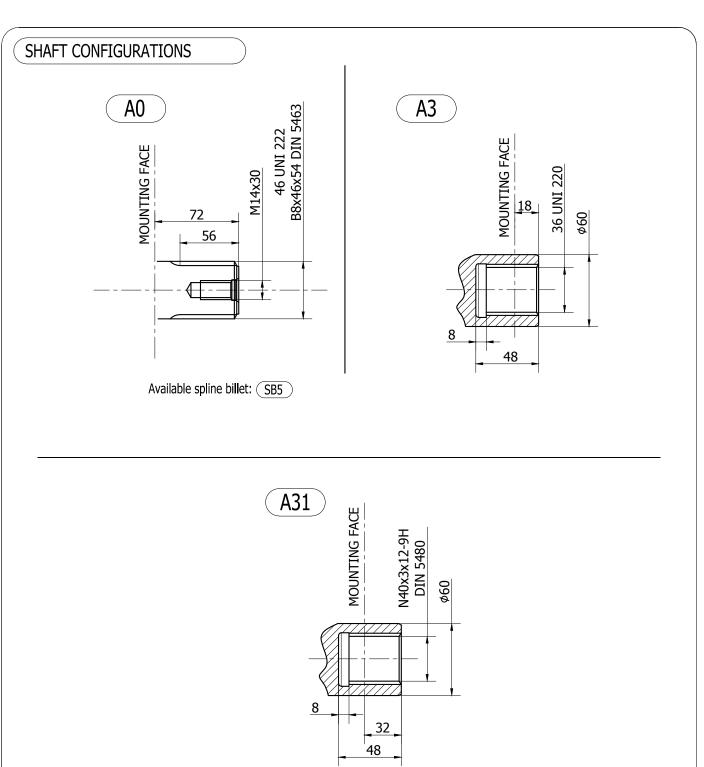
TECHNICAL DATA

		400	450	500	600	650	700
DISPLACEMENT	[cc]	397	452	491	594	660	707
SPECIFIC TORQUE	[Nm/bar]	6.3	7.2	7.8	9.4	10.5	11.2
MAX. CONT. PRESSURE	[bar]	250	250	250	250	250	250
HYDROSTATIC TEST PRES- SURE	[bar]	420	420	420	420	420	420
MAX. CONT. SPEED	[rpm]	600	600	600	550	500	450
PEAK SPEED (***)	[rpm]	680	680	680	630	580	500
MAX. CONT. POWER (****)	[kW]	45	45	45	45	45	45
MAX. POWER	[kW]	68	68	68	68	68	68
MAX. CASE PRESSURE	[bar]	6	6	6	6	6	6
DRY WEIGHT	[kg]	68	68	68	68	68	68
TEMPERATURE RANGE (**)	[°C]	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70

- (*) The standard distributor (D40) is shown. Please refer to distributors section (pag. 176-177) for differents distributor interfaces.
- (**) Please refer to the hydraulic fluid recommendations (pag. 10-11).
- (***) Do not exceed maximum power (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.

SHAFTS - IAM H3/GM3

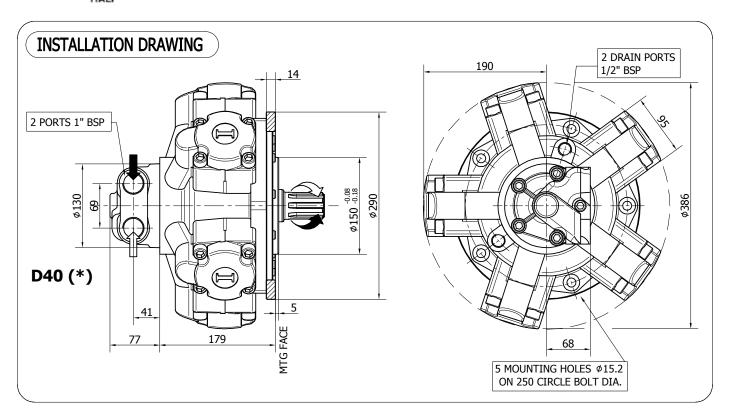




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IAM H3/S



TECHNICAL DATA

		400	450	500	600	650	700
DISPLACEMENT	[cc]	397	452	491	594	660	707
SPECIFIC TORQUE	[Nm/bar]	6.3	7.2	7.8	9.4	10.5	11.2
MAX. CONT. PRESSURE	[bar]	250	250	250	250	250	250
HYDROSTATIC TEST PRES- SURE	[bar]	420	420	420	420	420	420
MAX. CONT. SPEED	[rpm]	600	600	600	550	500	450
PEAK SPEED (***)	[rpm]	680	680	680	630	580	500
MAX. CONT. POWER (****)	[kW]	45	45	45	45	45	45
MAX. POWER	[kW]	68	68	68	68	68	68
MAX. CASE PRESSURE	[bar]	6	6	6	6	6	6
DRY WEIGHT	[kg]	68	68	68	68	68	68
TEMPERATURE RANGE (**)	[°C]	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70	-30÷70

^{- (*)} The standard distributor (D40) is shown. Please refer to distributors section (pag. 176-177) for differents distributor interfaces.

^{- (**)} Please refer to the hydraulic fluid recommendations (pag. 10-11).

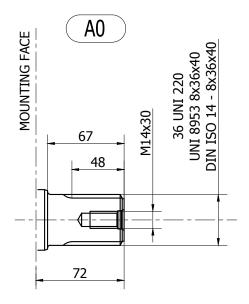
^{- (***)} Do not exceed maximum power (see pag. 13).

^{- (****)} 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.

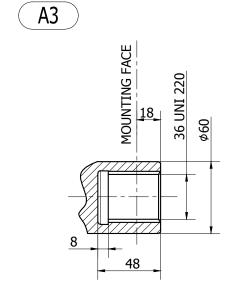
SHAFTS - IAM H3/S

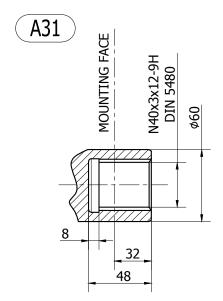


SHAFT CONFIGURATIONS

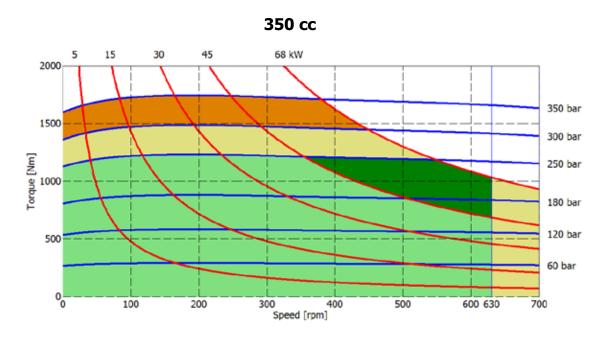


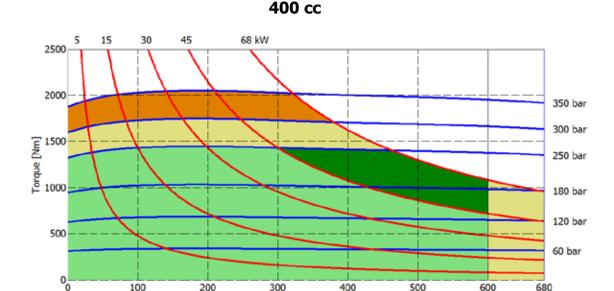
Available spline billet: (SB3)





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Speed [rpm]

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)

100

200

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.

600

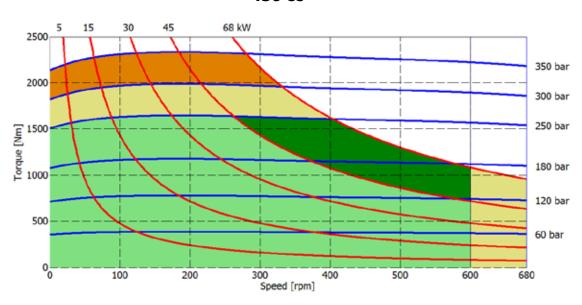
500

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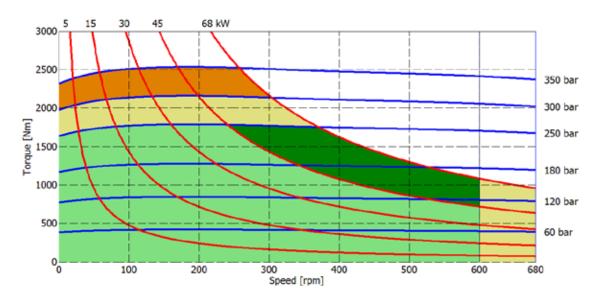
680







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

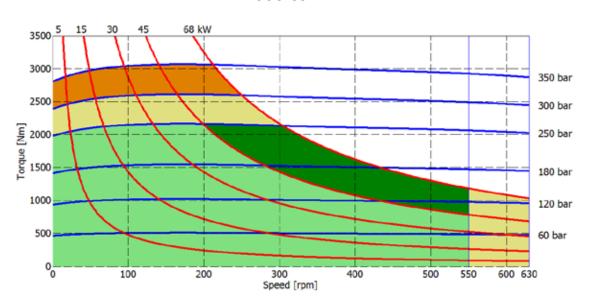
Peak operation: permitted for very short periods (3-5 seconds every 10-15 minutes)

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.

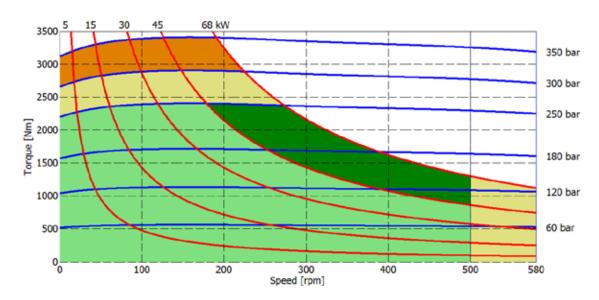
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600 cc



650 cc



Continuous operation

Continuous operation with flushing or intermittent operation (see below for intermittent operation)

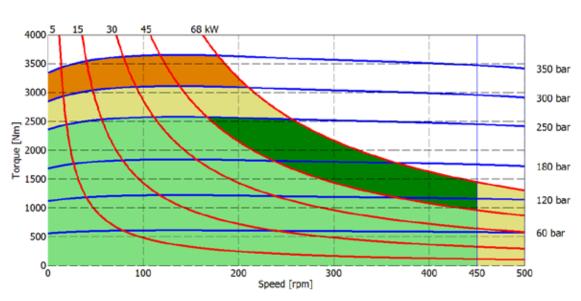
Intermittent operation: permitted for a 15% of duty cycle, for 3 minutes maximum period

Peak operation: permitted for very short periods (3-5 seconds every 10-15 minutes)

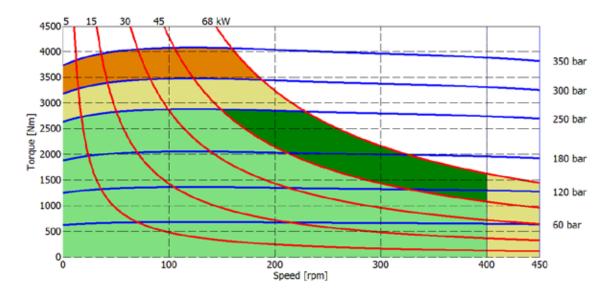
The above diagrams are referring to the hydraulic motor working with a fluid in ideal conditions (viscosity at 40 cSt). In case the working temperature increases and viscosity reach values under the recommended values (see hydraulic fluid recommendations) flushing must be performed or ISO oil grade must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







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

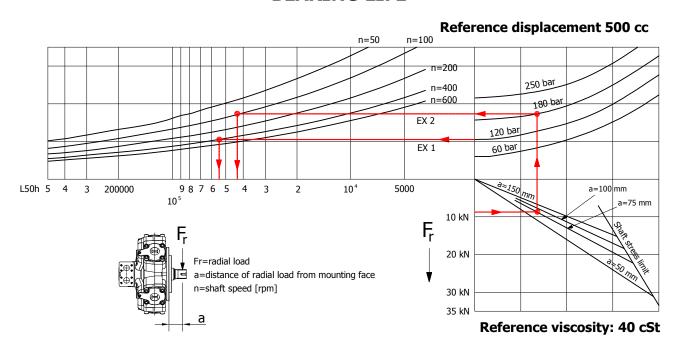
Peak operation: permitted for very short periods (3-5 seconds every 10-15 minutes)

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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BEARING LIFE



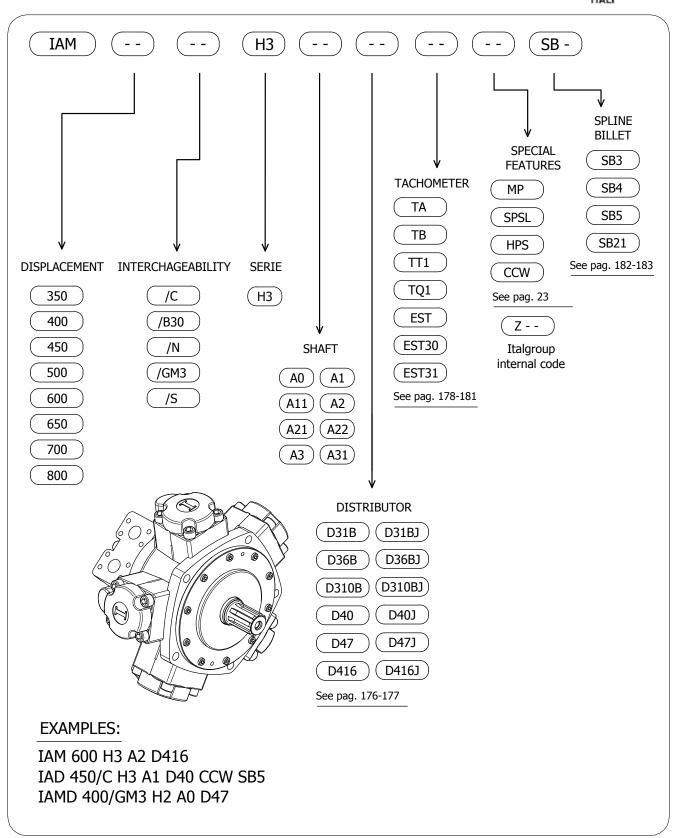
Example:

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].

The above data are referring to the IAM H3 series motors, displacement 500 cc.

IAM H3 - ORDERING CODE





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CONTACT US

Italgroup S.r.l.

Via Pacinotti 20/22

41010 - Gaggio di Piano (Modena) - Italy

Tel. +39 059 92 42 57 Fax +39 059 92 01 13

e-mail: <u>italgroup@italgroup.eu</u> internet: <u>http://www.italgroup.eu</u>



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